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BIHAR AND ORISSA DISTRICT GAZETTEERS.

CUTTACK.

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BIHAR AND ORISSA DISTRICT GAZETTEERS.

CUTTACK

BY

L. S. S. O'MALLEY, I.C.S.

SECOND EDITION

BY

E. R. J. R. COUSINS, I.C.S.



SUPERINTENDENT, GOVERNMENT PRINTING,
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PREFACE TO REVISED EDITION.

THE publication of this revised edition became necessary owing to the original being out of date and out of print, and in preparing it I have departed from the original only where necessary. For the sake of uniformity I have followed Mr. P. T. Mansfield's Puri Gazetteer as far as possible in the historical chapter. I am indebted to Rai Sahib Samuel Das, Deputy Collector, Mr. 'D. R. Sethi, Assistant Director of Agriculture, Dewan Bahadur Sri Krishna Mahapatra and successive Collectors of Cuttack for information and assistance.

E. R. J. R. COUSINS.

PREFACE TO ORIGINAL EDITION.

THE district of Cuttack possesses a more complete bibliography than most of the districts of Bengal. A full account of the people and their circumstances was written by Mr. Stirling in the beginning of the nineteenth century, and his account of Orissa Proper or Cuttack, published in 1822, is still the principal authority for the early history of the district under British rule. The modern authority is Mr. Maddox's Final Report on the Survey and Settlement of the Province of Orissa, 1890 to 1900 A.D., which contains an exhaustive review of the economic condition of that province; and the intermediate authorities are Toynbee's Sketch of the History of Orissa from 1803 to 1828, published in 1873, and Sir W. W. Hunter's account published in 1877 in Vol. XVIII of the Statistical Account of Bengal. In writing the present volume I have made full use of all these sources of information, and especially of Mr. Maddox's Report, which has been described as "a veritable Encyclopædia of the Province". My thanks are also due to Babu Jamini Mohan Das, M.A., B.L., for his ready assistance in revising the description of the religions and castes of Cuttack and for a note on the Utkal Brahmans; and I am especially indebted to Babu Monmohan Chakravarti, M.A., B.L., M.R.A.S., who has been so good as to write for the Gazetteer an account of the history of Orissa up to the time of the Muhammadan invasion.

L. S. S. O'MALLEY.

TABLE OF CONTENTS.

CHAPTER I.

PHYSICAL ASPECTS.

	PAGES.
GENERAL DESCRIPTION—Origin of name—Boundaries—Natural divisions—HILLS—RIVER SYSTEM—The Mahanadi—The Katjuri—The Brahmani—The Baitarni—ESTUARIES AND HARBOURS—The Devi Estuary—The Mahanadi Estuary—The Brahmani Estuaries—GEOLOGY—BOTANY—Water-hyacinth—Forests—FAUNA—CLIMATE—Temperature—Humidity—Cyclones—Rainfall	1—16

CHAPTER II.

HISTORY.

PREHISTORIC PEOPLES—The Savars—The Juangs—The Pans—The Kewats—The Utkalas and Odras—The early Indo-Aryan settlers—EARLY HISTORIC PERIOD—Kalinga—Asoka's reign—The Mauryan rule in Kalinga—Reign of Kharavela—The Andhra rule—Kongoda—The Sailodbhava dynasty—Visit of Yuan Chwang—The Kards—Bhanja Kings—MEDIÆVAL CIVILISATION—The Eastern Ganga Kings—Muhammadan raids—The Solar dynasty—The Bhoi dynasty—Mukunda Deva—General condition of the country—THE MUHAMMADAN CONQUEST—The earliest English expedition—CESSION OF ORISSA TO THE MARATHAS—THE MARATHA RULE—British negotiations with the Marathas—THE BRITISH CONQUEST—The Khurda rebellion ...	17—40
--	-------

CHAPTER III.

THE PEOPLE.

GROWTH OF POPULATION—Early estimates—Censuses of 1872, 1881 and 1891—Census of 1901—Census of 1911—Census of 1921—Census of 1931—Density—Migration—Towns and villages—Sex and age—LANGUAGE—Oriya Language—Written character—Literature—RELIGIONS—Hindus—Muhammadans—Christians—Hindu sects—Religious life— <i>Gram Devati</i> worship—SOCIAL LIFE—Character of the people—PRINCIPAL CASTES—Khandaits—Chasas—Brahmans—Gauras—Pans	41—66
---	-------

CHAPTER IV.

PUBLIC HEALTH.

VITAL STATISTICS—PRINCIPAL DISEASES—Fever—Cholera—Small-pox—The practice of inoculation—The religious aspect—Dysentery and diarrhoea—Other diseases—Hook-worm—Town and country—infirmities—SANITATION—MEDICAL INSTITUTIONS—Cuttack General Hospital—Orissa Medical School—Child Welfare Centre—Cuttack Leper Asylum ...	67—76
---	-------

CHAPTER V.

AGRICULTURE.

PAGES.

GENERAL CONDITIONS—Rainfall—Irrigation—Water-lifts—Soils—	
PRINCIPAL CROPS—Rice—Winter rice—Broadcast cultivation	
—Transplantation— <i>Biali</i> rice— <i>Dalua</i> rice—Outturn of rice	
—Other cereals and pulses—Oil-seeds—Fibres—Tobacco—	
MISCELLANEOUS CROPS—Sugarcane—Betel—Vegetables and	
fruits—EXTENSION OF CULTIVATION—Improved methods of	
cultivation—Manures—Rotation—CATTLE	77—95

CHAPTER VI.

EMBANKMENTS AND CANALS.

NECESSITY OF PROTECTIVE WORKS—EMBANKMENTS—Early history	
of embankments—Canal embankments—System of main-	
tenance—Value of the embankments—Recent developments	
—CANALS—Canal system—Weirs—Main canals—The High	
Level canal—The Jajpur canal—The Kendrapara canal—	
The Taldanda canal—The Machgaon canal—Canal revenue	
—Navigation—Canal administration—Water-rates—Value	
of canals	96—117

CHAPTER VII.

NATURAL CALAMITIES.

LIABILITY TO NATURAL CALAMITIES—FAMINES—Early famines—	
Famine of 1865-66—History of the famine—Scarcity of	
1896-97—FLOODS—Flood of 1855—Flood of 1866—Flood of	
1872—Flood of 1892—Flood of 1896—Flood of 1907—Flood	
of 1911—Flood of 1913—Flood of 1920—Flood of 1926—	
Flood of 1927—Measures to reduce flooding—Highest flood	
levels—CYCLONES—Cyclone of 1885—Cyclone of 1890 ...	118—127

CHAPTER VIII.

RENTS, WAGES AND PRICES.

CASH RENTS— <i>Thani</i> and <i>Pahi</i> raiyats—Settlement of 1897—	
Settlement of 1927—Other classes of tenants— <i>Jamabandi</i>	
<i>kharidadars</i> — <i>Baziaftidars</i> — <i>Tankidars</i> — <i>Chandinadars</i> —P R O-	
DUCE RENTS—WAGES—PRICES—MATERIAL CONDITION OF THE	
PEOPLE—Agricultural and labouring classes—Landlords—	
Professional classes—Mercantile classes—Co-OPERATIVE	
SOCIETIES	138—148

CHAPTER IX.

OCCUPATIONS, MANUFACTURES AND TRADE.

OCCUPATIONS—MANUFACTURES—Gold and silver work—Salt	
manufacture—Cotton weaving—Silk weaving—Other	
industries—Mines—Factories—TRADE—English factories—	
—Trade under the Marathas—Trade under the English rule	
—Imports and exports—Mercantile classes—Trade routes—	
Trade centres—Markets and fairs—Weights and measures ...	149—164

CHAPTER X.

MEANS OF COMMUNICATION.

	PAGES.
DEVELOPMENT OF COMMUNICATIONS—The Orissa Trunk Road—The condition of Orissa in 1866—Subsequent measures—	
WATER COMMUNICATIONS—Harbours—Rivers—Ferries—	
Canals—RAILWAYS—ROADS—Provincial roads—District board roads—Bungalows—Motor transport—Country carts—	
POSTAL COMMUNICATIONS	165—178

CHAPTER XI.

LAND REVENUE ADMINISTRATION.

HINDU REVENUE SYSTEM—MUHAMMADAN REVENUE SYSTEM—	
MARATHA REVENUE SYSTEM—EARLY ENGLISH ADMINIS-	
TRATION—Early Settlements—The Khurda rebellion—	
THE SETTLEMENT OF 1837—SETTLEMENT OF 1897—	
REVISIONAL SETTLEMENT OF 1927—GOVERNMENT ESTATES—	
QILAJAT ESTATES—PERMANENTLY SETTLED ESTATES—GROWTH	
OF REVENUE—REVENUE-FREE LANDS—LAND TENURES—	
Zamindars—Tenure-holders—Shikmi Zamindars—Tankidars	
or Tanki bahaldars. Privileged tenure-holders—Other	
tenure-holders—Raiyats—Chandinadars—Jagirdars—Under-	
rai-yats—Relations between landlords and tenants ...	174—197

CHAPTER XII.

GENERAL ADMINISTRATION.

ADMINISTRATIVE CHARGES AND STAFF—REVENUE—Land Revenue—	
Excise—Stamps—Income-tax—Registration—Administration	
of justice—Civil justice—Rent Suits—Criminal justice—	
Crime—Police—Jails—CONSTITUENCIES IN LEGISLATURE ...	198—205

CHAPTER XIII.

LOCAL SELF-GOVERNMENT.

THE DISTRICT BOARD—LOCAL BOARDS—UNION BOARDS—MUNI-	
CIPALITIES—Cuttack—Jajpur—Kendrapara	206—210

CHAPTER XIV.

EDUCATION.

EARLY HISTORY OF EDUCATION—Progress of education—Primary	
schools—Secondary schools—University education—The	
Ravenshaw College—Special schools—Orissa School of	
Engineering—Female education—Inspecting establishment	211—217

CHAPTER XV.

GAZETTEER	218—255
------------------	---------

TABLES.

	PAGES.
TABLE I.—Area and population	256-257
„ II.—Religion and literacy	258-259
„ III.—Principal castes and tribes of the district ...	260
„ IV.—Vital Statistics	261
„ V.—Prices Current (retail)	262
GLOSSARY	263—269
INDEX	i—v

PLAN OF CONTENTS.

CHAPTER	PAGES.
I. PHYSICAL ASPECTS 	1—16
II. HISTORY 	17—40
III. THE PEOPLE 	41—66
IV. PUBLIC HEALTH 	67—76
V. AGRICULTURE 	77—95
VI. EMBANKMENTS AND CANALS ...	96—117
VII. NATURAL CALAMITIES 	118—137
VIII. RENTS, WAGES AND PRICES ...	138—148
IX. OCCUPATIONS, MANUFACTURES AND TRADES ...	149—164
X. MEANS OF COMMUNICATION 	165—173
XI. LAND REVENUE ADMINISTRATION ...	174—197
XII. GENERAL ADMINISTRATION 	198—205
XIII. LOCAL SELF-GOVERNMENT 	206—210
XIV. EDUCATION 	211—217
XV. GAZETTEER 	218—255
TABLES 	256—260
GLOSSARY 	263—269
INDEX 	i—v

GAZETTEER

OF THE

CUTTACK DISTRICT.

CHAPTER I.

PHYSICAL ASPECTS.

CUTTACK, the central district of the Orissa Commissionership GENERAL DESCRIPTION. or Division, is situated between $20^{\circ} 2'$ and $21^{\circ} 10'$ north latitude, and between $85^{\circ} 21'$ and $87^{\circ} 1'$ east longitude. It contains an area, according to the latest survey, of 3,644 square miles; and a total population, as ascertained by the census of 1931, of 2,176,707 souls. The principal town, which is also the administrative headquarters of the district and of the Orissa Division, is Cuttack, situated on a tongue of land formed by the Mahanadi and Katjuri rivers at their point of bifurcation, in $20^{\circ} 29'$ north latitude and $85^{\circ} 52'$ east longitude.

The town was formerly one of the royal strongholds of ancient Orissa, and still contains the remains of the citadel in which its rulers once held their court. From this circumstance it derived the name of Kataka or fort; and, as is frequently the case, the designation of the capital town was in course of time given to the surrounding country. Origin of name.

The district is bounded on the north by the Baitarni river and Dhamra estuary, which separate it from the district of Balasore; on the east by the Bay of Bengal; on the south by the district of Puri; and on the west by the Feudatory States of Orissa. Boundaries.

It consists of three distinct tracts differing widely in their physical aspects. The first is a marshy woodland strip, from 3 to 30 miles in breadth, extending along the coast from the river Dhamra on the north to the Devi on the south; the second is a cultivated alluvial plain formed from the deposits of its great rivers; and the third is a broken hilly region forming the western boundary of the district. Natural divisions.

The marshy strip along the coast is a low woodland tract, abounding in swamps and morasses and intersected by innumerable winding creeks with a coarse jungly growth of canes, brush-wood and reedy grass on either side. It has

aply been described as the Sundarbans on a miniature scale, and it resembles that tract in its swamps, dense jungle and noxious atmosphere. This dismal region is subject to inundations of sea water, which leave a deposit of salt on the surface of the low-lying country, and in many parts render cultivation impossible. The only means of communication are the small sluggish streams winding into the heart of the jungle, along which country boats convey supplies of wood to the villages in the adjoining delta. The latter consists of a level plain stretching inland for about 40 miles, and occupying the country between the marshy sea-coast strip and the hilly frontier. It is intersected by several large rivers, which emerge from the western mountains and throw out a network of branches in every direction; these, after innumerable twists and interlacings, frequently rejoin the parent stream as it approaches the sea. It is a region of rich rice-fields, dotted with magnificent banyan trees, thickets of bamboos, mango orchards and palm groves of exquisite foliage; and it forms the only really fertile part of the district.

HILLS.

The frontier separating the district from the Feudatory States on the west consists of a chain of hills, covering about 46 square miles, with thickly wooded slopes and fertile valleys between. The greatest distance of this hilly region from the sea-coast is about 60 to 70 miles, but in many places the breadth of the alluvial plain does not exceed 15 to 20 miles. The hills do not consist of long continuous ranges, but are generally found in irregularly scattered groups, running nearly due east and west for a distance of about 15 miles. With the exception of a few naked bluffs, they are for the most part covered with vegetation; their outline, however abrupt, is always more or less rounded; and it is evident that they owe their present form to marine action. On the other hand, some hills, which appear from a distance to be flat-topped, really consist of a series of steep rugged ridges separated by deep precipitous valleys cut out by the denuding action of running water. In this western tract lie all the hills of the district with the exception of a few isolated peaks which break the evenness of the plain to the north of Cuttack. None of them are more than 2,500 feet high, but many are of great interest on account of the shrines or ancient forts with which they are crowned. The most interesting hills are in the Assia range, particularly Naltigiri, with its sandal trees and Buddhist remains; Udayagiri with its colossal image of Buddha, sacred reservoir, ruined temples and caves; Assia-giri, the highest hill in the district, standing 2,500 feet above

the sea, with an old mosque nearly 200 years old; and the Mahavinayaka peak in Kila Darpan, which has been consecrated for ages to Siva-worship by the devout ascetics and pious pilgrims who have penetrated its dense jungle. This hilly border-land and the low lands along the coast were formerly known as the Rajwara or Zamindara, and were held by feudal chiefs, who paid a tribute to their overlord, but otherwise retained an independent power; while the wide alluvial plains forming the delta of the Mahanadi, Brahmani and Baitarni rivers constituted the Mughalbandi or Khalsa, i.e. the crown lands from which the Mughal conquerors, like the indigenous sovereigns before them, derived the greater part of their revenue.

The most conspicuous feature in the general aspect of the district is its system of rivers, which issue in three magnificent streams through three great gorges in the mountainous country to the west. To the south, the Mahanadi debouches upon the plains just above Naraj, 70 miles from the sea; on the extreme north of the district, the sacred Baitarni emerges from a more open country, and forms the boundary between Cuttack and Balasore; and the Brahmani enters the district about halfway between the two. Cuttack is thus divided into two great valleys, one of them lying between the Baitarni and Brahmani and the other between the Brahmani and Mahanadi.

During the hot weather the upper channels of these rivers dwindle to insignificant streams dotted here and there with stagnant pools; but in the rainy season they bring down an enormous mass of water from the high table-lands in which they take their rise. Towards the coast they gradually converge, and pouring down their accumulated waters upon the level plain within 30 miles of each other, are only prevented from bursting over their banks and sweeping across the country by a great system of embankments. These great rivers drain an immense area amounting to over 65,000 square miles, and the rapidity of the current acquired among the mountains brings down a vast quantity of silt in suspension. As soon however as the river reaches the plains and leaves the broken hilly region for the level delta, its current is checked. The further it goes the more sluggish does the stream become, and the river, being unable to carry down the sand with which it is charged, deposits it in its bed and on the banks. By degrees, therefore the bed is raised and the river flows at a higher level than the surrounding country;

and the central portion rising more rapidly than the banks, the channel of the river becomes gradually shallower. The distributaries of the main rivers have their beds raised in the same way; and the result is that the rivers and their various channels become less and less able to carry off the water-supply to the sea, and frequently prove inadequate to furnish an outlet for the vast volume of water poured in at their heads during the rainy season. The velocity which these great rivers obtain in descending from the interior table-land being thus checked, they break up into a hundred distributaries radiating across the level plains. The distributaries, struggling by a thousand contortions and convolutions towards the coast, form a network of rivers, which joining here and separating there generally reunite with one of the three parent channels as they approach the sea.

The following table illustrates the main points in the river system of the district :—

BAITARNI	{ Baitarni }		Baitarni }	Dham- ra.		
	{ Burha }					
BRAHMANI	{ Kharsua }	{ Patiya } { Kharsua }	Kharsua }	Brahmani		
					{ Brahmani }	{ Brahmani } { Kimiria }
	{ Birupa }	{ Genguti } { Birupa }				
					{ Maha- nadi.	{ Chitartala }
{ Maha- nadi.	{ Chitartala }	{ Nun }	Maha- nadi.			
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The Maha-
nadi.

The Mahanadi (the great river) has a catchment basin of 48,200 square miles, and is by far the largest of all the rivers which water the plains of Orissa. Taking its rise in the mountainous country of the Central Provinces, it emerges from the Feudatory States and pours down upon the delta at Naraj, about 7 miles west of the town of Cuttack. It traverses the district from west to east and throwing off numerous branches on its way falls into the Bay of Bengal by several channels near False Point, in 20° 18' N., and 86° 43' E., after a course of 529 miles.

During its progress through the hill country, it receives a vast number of streams and tributaries from the high land on either bank, but no sooner does it reach the plains than its character changes. It now forms a great delta-head and instead of receiving confluent it shoots out a hundred distributaries. At Naraj it bifurcates, the southern branch being known as the Katjuri, while the northern retains the name of the parent stream. The town of Cuttack is built on the spit which separates the two rivers, and opposite the town the Mahanadi proper throws off a large branch known as the Birupa. Flowing in a north-easterly direction for about 12 miles, the Birupa gives off the Genguti on its left bank, the two streams enclosing between them the island of Kuhunda Jaipur; the Genguti meets the Kimiria, an offshoot of the Brahmani, about 18 miles below the point of bifurcation, and rejoins the parent stream a mile lower down. After receiving the waters brought down by these streams and by the Kelo, another branch of the Brahmani, the Birupa discharges itself into the main stream of the Brahmani a little above Indpur, and their united waters ultimately find their way into the Bay of Bengal by the Dhamra estuary. Just before the bifurcation of the Mahanadi and the Birupa both rivers are dammed by anicuts which control the supply of water to the head sluices of the High Level and Kendrapara canals.

After passing Cuttack, the Mahanadi divides into three branches, the Chitartala to the north, the Mahanadi in the centre and the Paika to the south. The Chitartala branch leaves the parent stream about 10 miles below the Birupa mouth, and soon bifurcates into the Chitartala and the Nun. These streams unite after a course of about 20 miles, and under the name of the Nun, fall into the Mahanadi estuary a few miles from the coast, and so into the Bay of Bengal. Ten miles from the point of bifurcation the Paika and Mahanadi rejoin, but only to separate again into the Sukpaika and Mahanadi; these branches reunite further down, and then dividing into a number of channels pass into the Bay of Bengal.

The Katjuri, which, as already stated, is an arm of the Mahanadi, branches off at Naraj and then immediately divides into two, of which the southern branch, known as the Koyakhai or crow's pool, passes into the district of Puri; its mouth is closed by a bar, so that little water flows into it except at flood time, and it is practically a spill-channel of the Katjuri. A short way below Cuttack the main stream throws off the Surua, which however rejoins it after a course

of a few miles. A little lower down the Katjuri divides again and throws off a large distributary, the Devi, down which the main body of its water passes. During its course to the sea this latter river gives off a great number of branches, the Kandal, Khandia, Dhobikhai, Purana Devi and other minor channels which all eventually reunite, and flow, under the name of the Devi, through the Puri district into the Bay of Bengal. The two northerly branches of the Katjuri, the Alanka and the Katjuri proper, have on the other hand been cut off at their head by the Devi left embankment, and the water originally carried by them has been diverted into the Devi and Tampua. The Katjuri is said to have been originally a comparatively small stream, and its name implies that it could at one time be crossed by a plank. During the last century, however, the volume of water passing down its channel increased considerably, and the head of the river became so much enlarged that it could not carry off the enormous volume of water poured into it by the Mahanadi. A weir and training embankment were therefore constructed at Naraj between 1860 and 1865, in order to regulate the flow and direct some of the water to the Mahanadi channels.

The Brahmani.

The Brahmani, which has a catchment basin of 13,700 square miles, is formed by the junction of the South Koel and Sankh rivers in the Gangpur State. After passing through the Bonai, Talcher and Dhenkanal States, it enters Cuttack district near Jenapur, where it is crossed by an anicut. It then follows a winding easterly course, and reaches the Bay of Bengal by two mouths, the Dhamra estuary and the Maipara river, in $20^{\circ} 47' N.$, and $86^{\circ} 58' E.$, 260 miles from its source. The principal branch of the Brahmani is the Kimiria, which takes off on its right bank opposite Rajendrapur village, and after meeting the Genguti, Kelo, and Birupa, falls again into the parent stream near Indpur under the name of the Birupa. On its left bank, the Brahmani throws off the Kharsua; which again divides into the Kharsua and Patiya; but the two channels reunite a little lower down and fall into the Dhamra. As it approaches the sea, the Brahmani mixes its waters with those of the Baitarni, and the united stream forms a noble estuary known as the Dhamra river.

The Baitarni.

The Baitarni, rising among the hills in the north-west of Keonjhar State, flows first in a south-westerly and then in an easterly direction, forming successively the boundary between the Keonjhar and Mayurbhanj States and between Keonjhar and Cuttack. It enters the district near the village

of Balipur; and after flowing in a winding easterly course across the delta, where it marks the boundary-line between Cuttack and Balasore, it joins its waters with the Brahmani, and passing by Chandbali finds its way into the sea under the name of the Dhamra river. The principal branches thrown off from the right bank of the Baitarni are cross streams connecting it with the Kharsua, the chief of which is the Burha. It is navigable as far as Olok, 15 miles from its mouth; but beyond this point it is not affected by the tide, and is fordable during the hot season. The river is the Styx of Hindu mythology, and legend relates that Rani, when marching to Ceylon to rescue his wife Sita from the ten-headed demon Ravana, halted on its banks on the borders of Keonjhar; in commemoration of this event large numbers of people visit the river every January.

The rivers of Cuttack find their way into the sea by four great estuaries. On the north, the Baitarni and Brahmani debouch into the Bay of Bengal at Palmyras Point, by the two mouths known as the Dhamra and Maipara; and after numerous ramifications the Mahanadi, or rather that portion of it which remains in Cuttack district, forms two great estuaries, one generally known as the Devi, in the south-eastern corner of the district, while the other, bearing the name of the parent river, empties itself into the sea at False Point, about half-way down the coast. In spite, however, of the existence of these estuaries and of the extent of its sea face, the district does not contain a single harbour capable of sheltering ships of any great size. An eternal war goes on between the rivers and the sea on the monsoon-beaten coast, the former struggling to find vent for their columns of water and silt, the latter repelling them with its sand-laden currents. These forces counteract each other, and the sea deposits a bar outside the river mouth, while the river pushes out its delta to right and left inside. All the estuaries therefore have a bar of sand across the mouth, which prevents the entrance of vessels of any large burden except at high tide; most of the trade passes through Chandbali in the Balasore district at the mouth of the Baitarni; and False Point, where ships can ride in an exposed roadway, constitutes the only anchorage on the coast. The following is a brief description of each of the estuaries.

The Devi, with its channel, the Jotdar, forms the last part of the great network of rivers into which the Katjuri branch of the Mahanadi bifurcates. According to a characteristic of the Cuttack streams, most of the members of this network reunite as they approach the ocean; and the result is a

ESTUARIES
AND HAR-
BOURS.

The Devi
estuary.

broad estuary, known as the Devi, which enters the sea a short distance to the south of the boundary between Cuttack and Puri. This estuary is navigable up to Machgaon by small sloops, which use this channel to obtain cargoes of oil-seed and rice. It is one of the best tidal channels in Orissa, but owing to the bar of sand at its mouth vessels of large size cannot enter it except at a high tide.

The Mahanadi estuary.

The northern branches of the Mahanadi also join as they approach the sea, and eventually enter the Bay of Bengal under the name of the parent stream. The estuary has several mouths, but the principal one is that which debouches through the shoals to the south of the False Point lighthouse. For many miles up the river, there is abundance of depth for ships of large burden, but unfortunately, as in the case of Devi, and indeed of all other Orissa harbours, a bar stretches across the mouth, which in addition to the perils of shoal water, adds the dangers incident to constant changes in the channels and the sandbanks. The False Point harbour, which lies a little north of the Mahanadi estuary, is a comparatively exposed anchorage, now rapidly silting up, and loading and unloading cannot be carried out in rough weather. Two separate channels lead inland from the anchorage, on the north the Jambu river, and on the south the Bakud creek, a short branch of the Mahanadi. A more detailed description of the harbour will be found in Chapter XV.

The Brahmani estuaries.

The river system of the Cuttack district on the north of the Mahanadi consists of the network of channels formed by the Brahmani and Baitarni, which after infinite windings, find their way into the sea by two great outlets at Point Palmyras. The southern of these is the Maipara river with its tidal creek, the Bansgarh, which runs southward almost parallel to the coast till it joins the sea about 6 miles north of False Point harbour. The mouth of the Maipara presents the usual obstacles of bars and high surf, and from its position on the south of the Palmyras promontory, it is inadequately protected from the monsoon. Between the months of November and March this last objection does not apply, and small craft from the Madras coast frequent it during the cold weather for the purchase of rice.

The Dhamra, the northern exit of the united streams of the Brahmani and Baitarni forms the boundary line between the districts of Cuttack and Balasore, but is within the jurisdiction of the latter district. The Dhamra, though navigable, is rendered dangerous by a bar across its mouth;

but the entrance has greatly improved of late years and at flood tide vessels drawing as much as 18 feet can pass in with safety.

Practically the whole of the Cuttack district east of the Bengal Nagpur Railway line from Calcutta to Madras consists of *recent* alluvial deposits. The tract thus indicated is of course the delta of the Mahanadi and Brahmani rivers which is still in process of extension seaward. The coastal strip may thus be considered as composed of the most *recent* alluvium, while the deposits in general near the railway line are of *older* alluvium. This suggests a seaward dip to these alluvial deposits.

GEOLGY.
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Roughly corresponding with the position of the railway line through the district there are extensive areas of laterite. This laterite appears to underlie the alluvium and is evidently in association with the rocks on which it rests. It is not quite certain if this laterite can be considered as detrital laterite as some sections suggest that it is definitely *in situ* (Mem. Geol. Surv. India, XLIX, p. 233; 1923; also *Op. cit.* I, p. 284, 1856). South-west of the town of Cuttack the laterite overlies the Athgarh sandstones of Upper Gondwana (Rajmahal) age. But at Dattola, near Khurda, in a well 76 feet deep the laterite passes down into gneiss, though unaltered gneiss was not encountered in the section. From evidence elsewhere it is concluded that the laterite of Cuttack is of the same geological age as that of the Midnapur district of Bengal and the Rajmahal Hills. This prolonged period of rock weathering and the formation of laterite is believed to have commenced in the early Tertiary era.

Barely 4 miles west of Cuttack in Siddeshwar Hill Dr. V. Ball discovered a basalt dyke intrusive in the Athgarh sandstones of that locality. As the Athgarh sandstones are known to be of Jurassic age it would appear very probable that this basalt dyke is related in time to the Deccan trap series of eruptions which overwhelmed the Indian peninsula at the close of the Cretaceous period. It is remarkable that no similar dykes have so far been recorded in the Talcher road Raigarh-Hingir coalfields in the Mahanadi drainage area. The only similar case of an isolated occurrence of the Deccan trap series is that of the outlier of basaltic lavas (Kateri and Pangadi traps) near Rajahmundry in the Lower Godavari valley (Mem. Geol. Surv. India, XVI, p. 231, 1880). It is a long time ago that Dr. V. Ball noted the above basalt dyke at Siddeshwar Hill and the place does not appear to have been examined since (Rec. Geol. Surv. India, X, p. 65, 1877).

Of greater interest perhaps than the basalt dyke of Siddeshwar Hill are the Athgarh sandstones and shales seen in that area. These beds were thought to be coal-bearing, or at least coal was reported to occur in this vicinity by Lieut. M. Kittoe nearly a century ago (*Journ. As. Soc. Bengal*, VI, p. 320, 1837). The matter was fully enquired into by Dr. V. Ball 40 years later (*Rec. Geol. Surv. India*, X, p. 63, 1877). He found several plant fossils (*Alethopteris indica*, *Asplenites macrocarpus*, *Thinnfeldia conferta*, *Palissya indica*) which were identified by Dr. O. Feistmantel (*Pal. India*, Series II, vol. I, Pt. 3, p. 189, 1877) as typical Upper Gondwana (Rajmahal) forms. This discovery of a Rajmahal flora in the coast region of Cuttack is a connecting link with those other occurrences of Upper Gondwanas in the East Coast districts further south between the Godavari and Kistna rivers (*Mem. Geol. Surv. India*, XVI, pp. 17 and 211, 1880). It is significant that similar fossils have not been found in the strata above the Barakars of the Talcher and other coalfields in the Mahanadi drainage basin. In fact the evidence from the Hingir and Rampur coalfields (Dr. V. Ball; *Rec. Geol. Surv. India*, VIII, p. 112, 1875) has shown that the supra-Barakar beds there belong to the Lower Gondwanas. There thus appears to have been a critical area on the borders of what is now the Cuttack district in early Mosozoic times.

To the north of Cuttack town and west of the road to Balasore the laterite is seen to rest on Archaean rocks, gneisses. Dr. Fermor has drawn attention to a marked difference in petrological and other characters in the Archaean schists and gneisses of the East Coast and those of Bihar (*Rec. Geol. Surv. India*, LIII, pp. 241 to 243, 1921).^{*} He has shown that the boundary between these two types of schists and gneisses, which represent different grades of intensity of metamorphism runs east-south-east from the Talcher coalfield in the direction of False Point on the north side of the Mahanadi valley, the strike of the schists and gneisses being also east-south-east, i.e., parallel with a portion of the course of the Mahanadi. South of this boundary the Eastern Ghats type of schists and gneisses—those characterised by the presence of garnet—are present. North of this boundary the rocks are of the Chota Nagpur facies, characterised by a lower grade of metamorphism.

^{*} A geological map of the Province of Bihar and Orissa on the scale of 16 miles to the inch, illustrating this paper but sold separately shows what is known of the geology of the Cuttack district.

Although the limits of the Talcher coalfield have been accurately defined (*Mem. Geol. Surv. India*, I, p. 33, 1856) and this coalfield has been connected by a broad gauge line with the main Bengal Nagpur Railway line from Calcutta to Madras, nevertheless, the tract between has not been geologically surveyed, although Dr. Fernor has made a rapid traverse. Both in connection with a possible outlier of Gondwana rocks, and the change in the character of the gneisses on crossing the boundary referred to above, this tract, involving the north-west corner of the Cuttack district, will prove to be of considerable interest.

From what has been stated above we may say that the rock formations likely to be met with in the Cuttack district are as shown below :—

	Quaternary	..	Recent alluvium along the coast and in the delta.
Cainozoic	..	..	Older alluvium further inland.
	Tertiary to Quaternary.		Laterite.
	.....		break.....
	Upper Cretaceous		Basalt dyke of Siddeshwar Hill.
			break
Mesozoic	..	.....	Athgarh
	Lower Jurassic	..	Sandstones west of Cuttack.
	.....		great break
Palaeozoic	..	.....	Entirely missing.
Archæan	..		Gneisses and schists on the western edge of the alluvium and laterite, belonging to the Chota Nagpur facies to north and the Eastern Ghats facies to the south.

The banks of the sluggish rivers and creeks which wind through the swampy low-lying country near the sea exhibit the vegetation of a mangrove forest, the principal species being *Rhizophora*, *Ceriops*, *Kandelia*, *Aegiceras*, *Hibiscus tiliaceus*, *Excoecaria agallocha*, and the like. Where sand dunes intervene between the sea and the cultivated land behind, an uncommon littoral vegetation is met with, which includes, *Spinifex*, *Hydrophylax*, *Geniosporum prostratum* and similar species. These sand hills stretching between the fertile rice plains and the sea constitute the only really distinctive feature of Orissa from a botanical point of view, and present not a few of the littoral species characteristic of the Madras sea-coast. The cultivated land which occupies the submontane tract to the west has the usual rice-field weeds such as *Ammannia*, *Ilysanthes*, *Dopatrium*, *Utricularia*, *Sphenoclea*, *Hygrophila*, while ponds and ditches are filled with floating water woods like *Pistia*, *Trapa*, *Nymphæa*, *Limnanthemum*, BOTANY.

or submerged water plants, such as *Hydrilla*, *Ceratophyllum*, *Vallisneria* and *Ottelia*. Near human habitations shrubberies containing *Trema*, *Glycosmis*, *Polyalthia suberosa*, *Triphasia*, *Adhatoda*, *Vasica*, *Solanum torvum*, and *Verbascifolium*, *Clerodendron infortunatum* and such-like semi-spontaneous shrubs are common. This undergrowth is loaded with a tangled mass of climbing *Naravelia*, various *Menispermaceæ*, many *Apocynaceæ*, several species of *Vitis*, a number of *Cucurbitaceæ*, *Basella*, and several *Convolvulaceæ*. The arborescent portion of these village-shrubberies includes the red cotton tree (*Bombax malabaricum*), *Odina Wodier*, *Tamarindus indica*, *Moringa pterygosperma*, the pipal (*Ficus religiosa*), the banyan (*Ficus bengalensis*), the palmyra (*Borassus flubellifer*) and the date palm (*Phœnix sylvestris*).

Water-hyacinth.

The water-hyacinth (*Eichhornia crassipes*) deserves special mention. A native of Brazil, it has spread over most of the tropics, and about 1900—1905 was introduced into the district by Bengali settlers and labourers returning home from their work in Bengal, partly owing to the attraction of its beautiful flower, and partly owing to a quite undeserved reputation for making water sweet. The pest can grow from seed, from a portion of an old root-stock, or by propagation by means of stolons or runners. It is stated that a single plant can cover 600 square metres in a single season. It quickly established itself, and in the course of 20 years had infected almost every *jhil*, pond, and water-course in the district, with the exception of the canals and the large swiftly-flowing rivers. The damage done was incalculable. Cultivation was encroached upon; drainage channels blocked; water-supply contaminated and the resulting noisome swamps afforded ideal breeding grounds for the malarial mosquito. Much of the malaria, cholera, dysentery and other intestinal troubles with which the district has been afflicted must undoubtedly be attributed to the presence of this scourge.

Spasmodic attempts at eradication were useless, owing to the extraordinary vitality of the plant. A tank might be cleared with great labour, hundreds or even thousands of tons of plant being removed; but if a single plant were left, either in the water, or in any channel leading into or out of the tank, in a few years the position would be as if nothing had been done at all. In 1923 the district board and various municipalities adopted by-laws rendering liable to prosecution the owner of any water who permitted water-hyacinth to exist therein after notice to remove it, but it was not until 1928 that any real attempt was made to enforce these. In that

year Mr. N. F. Peck, I.C.S., the Collector, organized a vigorous campaign against the weed, as a result of which, after almost incredible efforts, the entire district was by the end of 1929 rid of the weed, at least for the time. It is probably still not possible to be certain that the eradication is permanent, as some small source of infection may conceivably have been overlooked and the possibility of fresh germination cannot be entirely ruled out.

In the north-western portion of the district other species of a more truly forest character are found, among them being *Ailanthus excelsa*, *Pterocarpus Marsupium*, *Pterospermum Heyneanum*, *Dalbergia paniculata* and *lanceolaria*, *Melia composita*, *Adina cordifolia*, *Schleichera trijuga*, and the like. The bamboo of the district is usually *Bambusa arundinacea*. Open glades are filled with grasses, sometimes of a reedy character; sedges are abundant; and ferns are fairly plentiful.

There are no forests in the district, but wide stretches of Forests. jungle extend along the sea-coast and in the hilly border to the west. The woodland strip on the sea-board furnishes supplies of fire-wood and materials for cottage-building and agricultural implements; while large quantities of bamboos and fuel are brought down from the hilly tract adjoining the plains. *Sal* trees are found in Qila Sukinda, the proprietor of which carries on a trade in timber; and other products extracted from the western jungles are resin, wax, honey and *nux vomica*.

Wild animals are still plentiful in the district, in spite FAUNA. of the extension of cultivation and the construction of canals, and some of the larger species of carnivora abound in the hilly region to the west and in the low-lying country near the sea-board, where the dense jungle has not yet given way to the plough. Tigers are found in nearly all the large tracts of jungle in the northern part of the district, and they are occasionally found killing close to the town of Cuttack itself, as the Mahanadi, lying between the station and the hills, is an effective barrier to the advance of civilization. They annually cause considerable destruction, and in the five years 1926—30 they killed 64 persons and many hundreds of cattle. In the same period 67 tigers were shot and their dead bodies brought in for rewards. The jungle which they frequent is generally dense and thorny so that a line of beaters very soon disintegrates into a number of parallel columns walking along recognized paths. Beats are, therefore, as a rule unsuccessful, while owing to the large tracts of country over which the animals range, it is difficult to get information in time, and

shooting from *machans* is therefore practically impossible. Leopards are found all over the district; bear, spotted deer, hog-deer, *sambar* (*Cervus unicolor*) and mouse-deer are common in the interior; while black buck have their habitat on the sandy tracts along the coast. Bison are now rare, but stray wild elephants occasionally wander across the borders from the Garhjats. Boar are found in large numbers along the coast near Jambu, and porcupine, jackals and foxes are numerous. Wild dogs are occasionally met with, but wolves have now disappeared.

Indigenous quail, hare and black partridge are found in the scrub jungle, and migratory quail also occasionally visit the district. Pea fowl and jungle fowl are common and nearly every variety of wild duck is found. Snipe are numerous but scattered and large bags are rare. They are seldom found in the standing paddy as in Bengal and Bihar, but prefer jungle grass in the earlier part of the season, while in January and the following months they are found in wisps in the paddy stubble. Numbers of native *shikaris* shoot, snare and net for the local markets; they destroy wholesale and are rapidly diminishing the number of game of all kinds.

Crocodiles and *ghariyals*, or fish-eating alligators, abound in the tidal rivers and creeks, and grow to a very large size; the snub-nosed or man-eating crocodile annually levies a heavy toll on cattle and human life, and in the five years (1926—30) carried off 178 persons in addition to cattle.

A large variety of fish are found in the rivers, and the Oriya spends all his spare time in fishing, often standing up to his neck in water for the greater part of the day. Fish, either fresh or preserved by drying in the sun, is a favourite dish; dried fish known as *sukua*, being particularly popular with boatmen, carters, etc. *Hilsa* are caught in season, and the prawns of Cuttack are famous for their size and delicacy. Oysters are good and plentiful on the coast to the extreme north-east.

CLIMATE. Tempera- ture.

The district is directly on the track of the cyclonic storms which frequently cross Orissa during the monsoon season, and the extremes of climate are more marked than in most other parts of Bihar. In April and May the average maximum is 102°, and at Cuttack temperature has been as high as 118°; while the mean temperature falls from 88° in the hot weather months to 83° in the monsoon season and to 69° in February. It is one of the hottest districts in the province, and the account of William Bruton, one of the small band of

Englishmen who first visited it in 1633, shows how intensely they felt the heat. On the 28th April he writes: "At the hours of between eleven and twelve of the clock, it was so excessively hot that we could not travel; and the wind blew with such a sultry scalding heat as if it had come forth of an oven or furnace; such a suffocating fume did I never feel before or since." The cold weather commences in the beginning of November, the temperature begins to cool, and the mornings and evenings are chilly, though the air has not the same bracing invigorating effect as in Northern India. With March the heat approaches, and by April the hot weather has fairly set in; during these two months, and frequently in May, there are occasionally showers of rain accompanied by strong north-westers. Throughout these three months the heat is excessive in the day-time, but no sooner has the sun set than a strong sea-breeze prevails, and a punkha can almost be dispensed with, when it is in full force. Formerly the European residents used to repair to the coast during the hot season of the year, and an early account describes Puri as being to the residents of Cuttack what Brighton, Margate and other sea-bathing quarters are to the inhabitants of London. The rainy season begins in June or early in July, and the rains last till the end of September or the month of October, when an unpleasant time of moist heat marks their cessation.

Owing to the dry westerly winds which occasionally sweep across the district in the hot season and to the well-marked south-west monsoon conditions which occur later in the year, humidity undergoes considerable variation, ranging on an average from 72 per cent of saturation in April and May to 83 per cent in August. Humidity.

The cyclones which occur in the rains proper (i.e. in June, July, August and September) are generally small in extent, the barometric depression at the centre seldom exceeding half an inch, and the air motion, though violent, is rarely of hurricane force. The district is not liable to suffer from the devastating cyclones which occasionally occur in the months which precede and follow the full establishment of the south-west monsoon, i.e., during April and May, October and November, as the tendency is for such storms to move into the north of the Bay and recurve towards the Arakan or Bengal coast. But in the past several severe cyclones have been experienced, the most notable being that of the 23rd September 1885, which caused great havoc in the neighbourhood of False Point. Cyclones.

Rainfall.

The normal annual rainfall is 59.97 inches, of which 4.43 inches fall in May, 9.80 in June, 12.30 in July, 12.08 in August, 8.90 in September and 5.96 in October. From June to September the monthly rainfall varies from 10 to 13 inches on an average, with considerable fluctuations from year to year, according as the cyclonic storms are more or less numerous and move in the usual course westward over Orissa. In October the rainfall depends on causes similar to those mentioned below for May, and is similar in amount averaging 4 to 6 inches. Between November and April rain is light, and is usually caused by local thunderstorms. Cyclonic storms occasionally occur in the north of the Bay of Bengal in May, and with these storms weather of the south-west monsoon type prevails. An extreme case of such rainfall occurred in 1893, when more than 20 inches, or one-third of the normal annual amount, fell this month owing to a prolonged cyclonic disturbance in the north-west angle of the Bay.

Statistics of the rainfall for the various recording stations are given below for the cold weather (November to February), the hot weather (March to May) and the rainy season (June to October). The figures shown are the averages recorded from the earliest year in which rainfall was systematically registered up to the end of 1930 :—

Rainfall.

Station.	Nov.—Feb.	March—May.	June—Oct.	Total.
Jagatsingpur ..	4.02	5.59	52.20	61.71
Banki	3.11	4.79	47.08	54.98
Cuttack	2.90	6.34	51.42	60.66
Kendrapara ..	3.75	6.63	49.09	59.47
Jajpur	3.17	7.58	49.15	59.90
Dharamsala ..	2.66	7.18	48.45	58.29
Salipur	3.11	6.13	48.64	57.88
Aul	4.81	8.74	44.97	58.52
Binjharpur ..	5.76	8.11	49.50	63.37
Korai	3.54	7.13	46.08	56.75
Sukinda	3.97	7.70	53.51	65.18
Rajkanika .. .	6.37	7.90	39.31	53.58
Barchana .. .	4.55	7.16	52.95	64.66

CHAPTER II.

HISTORY.

ORISSA practically emerges into the light of history in the PREHISTORIC rock edicts of Asoka (B.C. 260). The references to its early inhabitants which can be traced in traditional or legendary chronicles are extremely few, and the remains of an anterior date which have been discovered are still fewer. Scanty, however, as are the materials from which any idea of its original inhabitants can be obtained, they are sufficient to justify the inference that in prehistoric times the hills were peopled by savage tribes differing from those which occupied the low lands, and that the intervening plains were in the possession of races somewhat more civilized. The only remains of the stone age hitherto found are some roughly chipped quartzite axes, discovered in Dhenkanal, Angul, Talcher and Sambalpur. Similar axes have been found in considerable numbers in the Madras Presidency, and to a smaller extent in the Central Provinces; and this fact may point to some connection between the tribes living in these localities and those dwelling in Orissa during the stone age.

It is probable that several of the tribes which still inhabit the hilly country to the west were originally natives of Orissa; but here, as in other parts of India, the absence of reliable data makes it difficult to separate the later immigrants from the early settlers. According to the traditions current among these tribes the Khonds of the south, the Gonds of the west and the Hos, Bhumijes and Santals of the north would appear to have migrated into Orissa in historic times. The Bhuiyas of Keonjhar allege that they are autochthonous, but the Juangs deny this; and other Bhuiyas have been found in Ranchi and other parts of Chota Nagpur who claim to have been originally settled there.

The Savars, who in Cuttack hold a degraded position as The Savars. hewers of wood, have better claims to be regarded as an indigenous tribe of Orissa. In the Aitareya Brahmana and Sankhayana Srauta Sutra, they are mentioned as one of the

degraded races (the Andhras, Pundras, Savars, Pulindas and Mutibas) descended from the fifty sons of the sage Visvafnitra, who were cursed by their father for being dissatisfied with his acknowledgment of Sunahsepa as his first-born. They are several times alluded to in the Bhagavati, the oldest sacred literature of the Jains, where their language is referred to as one of the *Mlechchhabhashas* or barbarous tongues; and they have been identified with the Suari of Pliny and the Sabaroi of Ptolemy. In the Mahabharata, the Savars are placed in the Dakshinapatha, *i.e.* the region to the south, and in the Brihat Samhita in the south-east of India, and this is confirmed by Pliny and Ptolemy. Their geographical distribution has not been much changed, and they are still found in Midnapore, Singhbhum and Orissa.

The Juangs. The Juangs of the Feudatory States, who are one of the most primitive races of India, would seem to be another of the early tribes of Orissa. Till they were clothed by order of the Government, the only covering of the females consisted of a few strings of beads round the waist, with a bunch of leaves before and behind—a practice which has given them the name of Patuas or Patrasaras (leaf-wearers) in Orissa; they had no knowledge of the metals till the 19th century, when foreigners came among them; and no word existed in their own language for iron or any other kind of metal. But their country abounds in flint weapons, and it has been suggested that they are the direct descendants of the ancient stone-cutters. They may be the Parna-savaras of the Markandeya Purana, and the Drilophylletes of Ptolemy.

The Pans. The Pans, who are found scattered throughout Orissa, Singhbhum, Ranchi and the adjoining tracts in the Central Provinces and Madras, should also probably be regarded as one of the prehistoric peoples of Orissa. Everywhere they rank among the lowest classes; they are employed in servile occupations even by such tribes as the Khonds and Bhuiyas; and in the days of human sacrifices, the Khonds selected a Pan boy as the best sacrifice that could be offered to mother earth. All these facts seem to indicate that they were the original occupants of the soil, who were dispossessed and reduced to slavery by other tribes. They are possibly the *Parnnakas* of the Vajasaneyi-Samhita and the *Taittiriya Brahmana*, and the *Nagna-parnas* of the Brihat Samhita mentioned as living in south-eastern India.

The sea-coast and the low lands behind it were presumably occupied by tribes who followed the occupation of fishermen and boatmen. The Kewats, including the cognate castes, the Gokhas and the Mallahs, have been traced to very early times as the Kewats in Asoka's Pillar Edict no. V, and, in the Sanskrit form of the name, as the Kaibarttas mentioned in the Vajasaneyi-Samhita and the Taittiriya Brahmana.

The intervening plains and uplands appear to have been held by tribes on a somewhat higher level of civilization. From the scanty references made to them in later literature, it would seem that some of these tribes were known as Odras and Utkalas. The Odras and Utkalas appear as different tribes; the former are now and then joined with the Paundras in the Mahabharata, the Manu Samhita and the Brihat Samhita (*Paundra-Odra*), and with the Marundas in the Bhagvati (*Marund-Odra*), while the Utkalas are connected with Mekalas in the Mahabharata, the Ramayana, and the Brihat Samhita. The Paundras occupied the land now known as the Radha; while Mekala was the tract round about the Amarakantaka hills, the river Son being specially described in the Harivansa as Mekala-prabhava. If this connection has any significance, it means that the Odras occupied the eastern and the Utkalas the western side of the country.

According to Puranic tradition there were two kings, brothers, named Gaya and Utkala who ruled over the territories to which they gave their names. These almost certainly represent pre-Aryan, probably Austric peoples, and may perhaps be the original inhabitants of the country. By the middle of the 17th century B.C. at the latest the Anava branch of the great Aryan family had spread over and subdued all the plains of lower Bengal and Orissa, and their dominions resembled a great wedge with the apex near Bhagalpur and the base on the sea-coast from Ganjam to Chittagong. Association of the Odras with the Pandras in the early literature makes it probable that the former were Aryan invaders, as the latter certainly were. The indication suggests that the Odras pushed the Utkalas into the western hilly tracts, and occupied the eastern plains for themselves. They gradually spread over the south into Kalinga till that land became divided into two main speeches, the Oriya and the Telugu. The country however continued to be called Utkala in Sanskrit works.

Early Indo-
Aryan
settlers.

It is probable that there had been some intermingling of the conquerors and conquered, because in the Mahabharata the people of Kalinga are mentioned as Kshattriyas who had been degraded to the rank of Sudras, and as people who had no religion. A similar statement is made in the Manu Samhita regarding the Kshattriyas among the Odras. In the Baudhayani Dharma Sutra it is laid down that he who has visited Kalinga must offer a sacrifice in penance, and in support of this an older verse is quoted. Among these Aryan settlers there must have been Brahmans who apparently shared in this degradation since they were not recognized as such in the Madhyadesa. The Mastans and the Saruas are probably the descendants of these early immigrants; they call themselves Brahmans and wear the sacred thread, though they neglect the nine sanskaras, or ceremonies incumbent on Brahmans, and have taken to forbidden occupations, such as cultivating with their own hands, selling vegetables, etc.

EARLY
HISTORIC
PERIOD.

Kalinga.

According to Puranic tradition 32 kings, who would be of the Anava branch of the Kshattriya race, ruled in Kalinga between the end of the Mahabharata war and the rise of Mahapadma Nanda of Magadha at the beginning of the 4th century B.C. The tradition states that he exterminated the Kshattriyas, and it is clear that Kalinga was subdued and became a part of the Nanda Empire. In the Hathi Gumptha inscription of King Kharavela there are two references to Nandaraja, who is probably Mahapadma Nanda. The first states that in the fifth year of his reign Kharavela extended the canal excavated by Nandaraja; the second, that in the twelfth year of his reign, when Kharavela sacked Pataliputra (Patna), he brought back the image of a Jina which had been carried away by Nandaraja.

After the fall of the Nandas Kalinga apparently regained its independence. It certainly did not pass with the rest of the Nanda Empire to Chandragupta Maurya, because his grandson Asoka had to conquer it afresh. Since Chandragupta is credited with the conquest of even the extreme south of the Peninsula as far as Tinnevely, it seems obvious that he found Kalinga too powerful to be tackled at the time. Kalinga extended, according to the Mahabharata, southwards from the *Ganga-Sagara-Sangama* or the junction of the Ganges with the sea, the river Baitarni in Orissa being specially mentioned as in Kalinga; while according to Pliny, it stretched as far

south as the promontory of Calingon, which is identified by Cunningham with the promontory of Coringa at the mouth of the Godavari. Some idea of its teeming population may be gathered from the Rock Edict XIII which begins with saying that when Asoka conquered Kalinga, 150,000 persons were carried away captive, 100,000 were slain and many times that number perished. The evidence of the high standard of civilization and prosperity attained in Kalinga is equally striking; elephants were specially bred for the royal forces, of which they formed a prominent part; diamonds of a special kind were quarried and exported; there was an entirely separate measure for medicines; cloth was manufactured and exported in such quantities that Kalinga became the word for cloth in old Tamil; and frequent sea voyages were made to countries outside India, on account of which the Indians came to be called Klings in the Malay Peninsula.

As a result of the bloody war mentioned above Orissa and Kalinga were incorporated in the Empire of Asoka in 262 or 261 B.C. Asoka commemorated his rule by inscribing at Dhauli hill near Sardeipur on the Daya rock edicts I—N and XIII in which he gave an exposition of his ethical system and principles of Government. Besides these general edicts, he also inscribed two edicts, known as the Kalinga edicts, in which he laid down principles for the administration of the newly conquered province and of the wild tribes dwelling on its borders; the first edict, called by Mr. Vincent Smith the Borderers' Edict, dealt with the duties of officials to the border tribes; and the second, called the Provincials' Edict summarized their duties to the more settled inhabitants. These edicts illustrate clearly the methods of administration followed in this frontier province, and shew that it was considered necessary to place it under a Viceroy stationed at Tosali. Tosali, to the officer in charge of which the Kalinga edicts were addressed, was probably some place close to Bhubaneshwar, which is not far off from Dhauli and the ancient caves of Khandagiri; and from its upland position commanding the bifurcation of the river, was well fitted for the site of the capital of the Viceroy.

Under the rule of the Mauryan Emperors Orissa must have been brought into closer relations with Northern India, and its inaccessibility to some extent removed by roads lined with banyan trees and mango groves, with wells and rest-

Asoka's
reign.

The
Mauryan
rule in
Kalinga.

houses, and by the arrangements made for the safety of Government messengers and travellers. These measures naturally facilitated an influx not only of officials but also of traders and pilgrims, some of whom eventually settled in the land. Hence in the Mahabharata one finds later verses declaring that there were good men in Kalinga, and that places of pilgrimage existed in the country, which shows that the ban laid on travelling in that country had been withdrawn.

It seems certain that during the reign of the Mauryan Emperors, a number of Jains settled in the country, for the sandstone hills of Udayagiri and Khandagiri 5 miles north-west of Bhubaneshwar are honey-combed with their hermitage caves, some of which bear inscriptions in the Brahmani character of the Mauryan age. They all appear to have been made for the religious use of the Jains. This seems evident from the inscription on the Hathigumpha or elephant cave, which opens with the usual benedictory formula of the Jains, while another inscription in the Swargapuri cave declares that, by the grace of the Arhats, it was made by the chief queen of the King of the country.

Reign of
Kharavela.

The last of the Mauryas was dethroned by his general Pushyamitra, who founded the Sunga dynasty about B.C. 180—170. In the disruption of the empire that followed Kalinga again became independent under a Dravidian dynasty of the Chedi race. The only one of this dynasty of whom anything is known is Kharavela, who ascended the throne about 183 B.C., and an inscription in the Hathigumpha cave at Udayagiri narrates the principal events of the first thirteen years of his reign. Kalinga under this king was evidently a power of some importance. In the second year of his reign he successfully invaded the territories of Satakarni of the powerful Satavahana or Andhra dynasty. In the fourth year he pushed his inroads further and penetrated as far as the gulf of Cambay. In the sixth year he assumed imperial titles; in the eighth he invaded Magadha with a vast army and laid siege to the ancient capital of Rajgir. Here however he seems to have come in conflict with another adventurer on the same errand, the Greek king Demetrios, and both kings fell back on their own territories. In the tenth year he again invaded Magadha, but the details have been lost as the inscription is damaged at this point. In the eleventh year he subdued a confederacy of Tamil kings occupying the country

between the Godavari and Krishna. Campaigns were now undertaken in rapid succession. In the twelfth year of his reign he ravaged the north-western country up to Mathura, and beyond into the Punjab; captured Pataliputra, stabling his elephants in the famous Suganga palace on the banks of the Ganges, and returned home laden with the booty of the modern districts of Shahabad, Patna, Gaya, Bhagalpur and Monghyr. Kharavela was a staunch adherent of the Jain religion, and the thirteenth year, with which the inscription ends, seems to have been devoted to religious observances at the Udayagiri Hill, gifts to priests and the erection of temples. Two other members of this dynasty are mentioned in cave inscriptions but beyond their names nothing is known of them and most probably the country was subjugated by the Satavahanas before their conquest of Magadha in the first century B.C.

It is not known how long this dynasty lasted or by whom its kings were succeeded. But it is probable that in the 2nd century A.D. Kalinga, including Orissa, acknowledged the suzerainty of the Andhras, to whose active influence the introduction of Buddhism may perhaps be ascribed. The Tibetan chronicles have preserved a tradition that the king of Otisha was converted to Buddhism, with 1,000 of his subjects by Nagarjuna who is believed to have flourished about 200 A.D. at the court of the Andhras, and the conversion of the people would naturally have been facilitated by the royal example.

Obscurity now descends again upon Orissa, and does not lift entirely until the beginning of the 11th century A.D. Of the earlier part of this period, from the first century B.C. to the beginning of the 7th century A.D., nothing is known at all. Regarding the latter part much has been discovered in recent years from copper plate inscriptions, but the piecing together of the information is largely conjectural, and the following account may be taken merely as representing the latest view on the subject.

At the beginning of the 7th century A.D. a line of kings known as the Sailodbhava dynasty is found to be ruling over a country known as Kongoda, and acknowledging the suzerainty of Sasanka king of Gauda, whose capital was in the Murshidabad district of Bengal, and whose dominions stretched from Shahabad to Ganjam. Kongoda apparently at

The Andhra
rule.

The Sailod-
bhava
dynasty.

Visit of
Yuan
Chwang.

this time covered the modern districts of Cuttack, Puri and Ganjam. This connection with Gauda involved Orissa in the struggle between Sasanka and the powerful sovereign of Kanauj, Siladitya Harshavardhana, and when Sasanka was finally overthrown, Orissa was more than once invaded by Harshavardhana, who indeed claims to have conquered it. The fact that successive expeditions were necessary, however, suggests that this is an exaggeration, and there is little doubt that the Sailodbhava kings successfully maintained their independence long after the death of Harshavardhana. It was during this period that Odra (*u-cha*) and Kongoda (*Kung-yu-to*) were visited by the Chinese traveller Yuan Chwang (Hiuen Tsiang) in 640 A.D. He gave a short but graphic account of the country in his travels. This country, he says, was about a thousand *li* (a *li* being 1/5th to 1/6th of a mile) in circuit with a capital 20 *li* in circuit. A hilly country bordering on a bay of the sea, it contained some tens of towns, stretching from the slope of the hills to the sea. The climate was hot; the harvests regular; and being on the sea-side it contained many rare and precious commodities. It produced large dark-coloured elephants, capable of long journeys. The people were tall, black-complexioned, valorous, not very deceitful with some sense of propriety. Their language was the same as that of India, but their manner of speaking it different. They were not Buddhists, having Deva temples a hundred in number and of Tirthikas more than ten thousand.

The Karas.

The Sailodbhavas ruled up to the middle of the 8th century when they appear to have been supplanted by another dynasty known as the Karas. In 795 A.D. Subhakara, the third king of the dynasty, sent to the Chinese emperor, Te-Tsong, an autograph manuscript containing the last section of the Buddhist work Avatamsaka. The Karas adopted the title of Kesari ('Lion'), a title subsequently used by many kings of Orissa who were in no way connected with them. At least three inscriptions are known of a king named Uddyota Kesari, Lord of the three Kalingas, i.e. Kalinga, Odra and Utkal, who apparently lived about 1040 A.D., but the genealogy as given shows that he was in no way connected with the Karas; and a reference from Bengal mentions a Karna Kesari king of Utkala who was conquered and deposed at some time before 1060 A.D.

The Kara rule seems to have been short and precarious. After Subhakarā's immediate successor the family seems to have suffered eclipse, and though another branch of the family succeeded in regaining the throne with the help of a southern chieftain whose daughter the Kara prince had married, their hold on the country was insecure, and the local feudatory chieftains of the Bhanja and other dynasties began to assert their independence, and assumed royal titles. At least three groups of kings of the Bhanja family, now represented by the Bhanja ruling houses of Mayurbhanja, Keonjhar and Baud are known Kings. from copper plates to have existed about this time.

The number and magnificence of the remains at Bhubaneswar and elsewhere are evidence of a wealthy and highly-civilized kingdom. The art of architecture must have been well developed to enable such huge structures to be designed and constructed; and the skill and resource both of builders and masons are clearly shown by the fact that they were able to move and lay in place, without mortar, such gigantic stone-blocks, and to produce the vigorous and often exquisitely carved figures, foliage and arabesque patterns, which lend a charm to the carvings adorning these shrines. These stately temples show the hold which Hinduism had obtained in Orissa by this time, and no trace is found of the Buddhism, which according to tradition, was introduced a few centuries earlier. At the same time Jainism appears to have experienced a revival, for in the caves at Khandagiri and Udayagiri just across the border of the district we find inscriptions and rock-cut images of Jain saints or deities dating back to the same period. Magnificent as are these monuments, not a single literary work of the period has yet come to light. So far as can be gathered from the inscriptions the study of Sanskrit was kept up; and in the *Sarasvatikanthabharana*, a rhetorical work of the 11th century, a special class of alliterations is distinguished by the name *Odri*. Mediæval civilization.

In the beginning of the 11th century, the Cholas, who had established a great empire in the Deccan, began to extend their power over Orissa, but their conquests do not appear to have left any permanent mark on the country, being merely brief but successful expeditions. At the end of that century it was effectually subdued by the Eastern Gangas of Kalinga-nagara (the modern Mukhalingam in the Ganjam district), and the rule of these monarchs lasted until 1434-35, the The Eastern Ganga kings.

dynasty including altogether 15 kings. Of these by far the most powerful was Chodaganga, who extended his dominions from the Godavari to the Ganges; and built the famous temple of Jagannath at Puri in the first half of the 12th century. The shrine of Gangeswar at Jajpur which was constructed under his orders was named after him. Another of the Ganga kings Narasimha I (1238—64) is known to posterity as the builder of the beautiful temple of Konarak, which he dedicated to the sun-god Arka at Kona, while the temple of Megheswar at Bhubaneswar was erected by a general and councillor of one of his predecessors Ananga-bhima about 1200 A.D. A notable feature of the reign of the latter prince is the measurement undertaken by him of the whole of the land comprised within his dominions. The total area came to 6,228,000 *battis*. About 1820 for want of a better guide the Commissioner converted this measure into English measure and gave the result at 40,000 square miles. Surveys carried out in the 19th century returned the total at 39,409 square miles which bears testimony to the accuracy of the 13th century measurement.

Muham-
madan
raids.

In 1205 A.D. came the first Muhammadan incursion when Muhammad-i-Shiran, an officer of Bakhtiyar Khilji, burst down upon the country. The invasion appears to have found the country unprepared, but it was little more than a raid, and the invaders retired of their own accord on hearing of the disaster that had befallen their master in Assam. With the accession of Ananga Bhima III in 1211 the kings of Orissa lost their lethargy. An invasion by Ghiyasuddin Iwaz Shah shortly after his succession was successfully repulsed, both sides claiming the victory. The Hindu version of the episode is recorded in an interesting inscription on the temple of Chateswar in the village of Krishnapur in this district. Ananga Bhima was succeeded by his equally vigorous son Narasimha I (1238—64), who in 1243 invaded Bengal, routed the Governor Izuddin Tugral Tughan Khan and besieged him in his capital at Gaud. The following year Lakhnaur, an important stronghold in the Birbhum district, was sacked, and although help had by this time been sent from Delhi, so great was the dissension amongst the Muhammadan nobles that Narasimha was able to retire to his own country unmolested. Between 1247 and 1255 there were three battles between the Oriyas and the Muhammadans under Ikhtiyaruddin Yuzbak, in the last of which he was severely defeated. With assistance

from Delhi he managed once again to invade Orissa and captured a fortress named Umardan or Armardan, which is wrongly described as the capital, but he died shortly afterwards, and Muhammadan aggression in Orissa ceased. Narasimha I will be remembered by posterity as the builder of the beautiful temple of the sun-god at Konarak near Gop in the Puri district. This was a great age for temple-building. In addition to the temples of Jagannath at Puri, and the Konarak and Chateswar temples mentioned above, those of Gangeswar at Jajpur and Megeswar at Bhubaneswar date from this period.

The object of the Muhammadan raids was to secure the elephants for which Jainagar, as the Muhammadan chronicles styled Orissa, was famous. The foray of the Bengal Governor, Tughril Khan, in 1279 or 1280 A.D. resulted in the capture of a great number of these animals; in 1323 A.D. Ulugh Khan, the son of the Delhi Sultan, Ghiyas-ud-din Tughlik, took away forty of them, and similar results followed the inroads of the Bahmani Sultan, Firoz, in 1412 A.D., and of Hushan-ud-din Hoshang, the King of Malwa in 1422. The most remarkable of all was the invasion of the Delhi Emperor, Firoz Shah in 1360-61. Leaving the baggage behind the Emperor marched on to Bihar and then advanced rapidly through the jungles to Orissa. Crossing the Mahanadi, he occupied the royal residence at Cuttack, from which the king had fled to an island in the river. Here Firoz Shah spent several days hunting elephants, and when the Oriya king sent envoys to sue for peace, ironically replied that he had only come to hunt elephants, and was surprised that instead of welcoming him the Rai had taken flight. Finally the latter sent a present of 20 elephants and agreed to send a certain number annually as tribute, and the Emperor then returned to Delhi.

On the death of the last Ganga king his Minister The Solar Kapilendradeva, aided by the nobles and possibly by the Bahmani Emperor Ahmad Shah II, seized the throne and founded the Suryavansa or Solar dynasty in 1435 A.D. During his reign of 35 years he was constantly at war. He found the kingdom at a very low ebb but succeeded by constant wars in extending its limits till it stretched from the Ganges to the Pennar. In Bengal Nasiruddin Muhammad Shah was

striving to keep up a tottering throne, and here the Oriyas extended their frontier up to the Ganges. In the south the Kingdom of Warangal had been overthrown, leaving Telingana divided among a number of petty chiefs; and Kapilendra overran and annexed the country as far as the Krishna. South of this river the kings of the first Vijayanagara dynasty, harassed by internal revolt and bloody wars with the Bahmani Sultan, were struggling to uphold a sinking empire. Taking advantage of their troubles the Oriya king annexed the east coast south of the Krishna (Kistna) as far as Udayagiri near Nellore, and then, successfully resisting the attempt of the Bahmani Sultans to crush him, ravaged their territories up to Bidar in 1457. Energetic as was his foreign policy, he showed no less vigour in his internal administration. One of the earliest measures of his reign was to remit the chaukidari tax paid by Brahmans and the tax on salt and cowries, to stop the resumption of waste and pasture lands, and to issue orders that all the chiefs in Orissa were to work for the general good on pain of banishment and confiscation of their property. He richly endowed the temple of Jagannath at Puri, and in this district one of his ministers, Gopinath Mahapatra, built the temple of Jagannath at Gopinathpura about 1465 A.D.

On the death of Kapilendra in 1470 the Bahmani Sultan invaded the country, and occupied the southern districts of Kondapalli and Rajamahendri, and the king of Vijayanagar took the opportunity to seize all Kapilendra's dominions south of the Godavari. The attempt of the new king Purusottamadeva to recover them led to a further invasion, but the Oriya king appears ultimately to have regained them and to have extended his kingdom at least as far as Kondavidu to the south. He also took the opportunity afforded by the confusion which prevailed on the overthrow of the Vijayanagar dynasty to invade that country, and retired with a magnificent booty including the image of Sakshigopala, which is now at Satyabadi in the Puri district. His son, Prataparudradeva, ascended the throne in 1497, and had at once to march to the north to repel an invading army sent by the king of Bengal, Ala-ud-din Hussain Shah; and twelve years later he had again to drive out another force, which advanced under the Bengal general Ismail Khan, and sacked Cuttack and Puri. In the south he was engaged in constant wars with the kings

of the second Vijayanagar dynasty, the struggle ending with the cession of all the territory south of the Krishna by the Oriya king. His kingdom was still further reduced by the loss of the tract between the Krishna and the Godavari in 1522 A.D., when Quli Qutub Shah, the founder of the Golconda dynasty, drove out the Oriya army. Although the reign of Prataparudradeva was one of decline, it witnessed a great religious revival owing to the spread of the Vaishnavite doctrines. In 1510 A.D. Chaitanya, the great apostle of Vaishnavism, repaired to Orissa, and there devoted the rest of his days to the propagation of the faith; he is said to have converted the king and several of his officers, but his preaching was not confined to the court, and the purity of his life and doctrines made a lasting impression on the people generally.

The Solar dynasty did not long survive the death of Prataprudradeva. The powerful minister Govinda Bidyadhara killed his two sons, and in 1541-42 A.D. seized the throne. The short-lived Bhoi dynasty which he established only lasted till 1560 A.D., and the few years it covered were spent in civil war. First Raghubhanja, one of the Garhjat chiefs, revolted, but was soon defeated and subdued. On the death of Govinda's son whose unpopular reign ended about 1557 A.D., the minister, Mukunda Deva, rebelled, and after killing the two last Bhoi kings and defeating Raghubhanja, who had returned at the head of a Bengal army, secured the throne in 1560.

Mukunda Deva, who was a Telugu by birth, was the last independent Hindu king of Orissa, which at this time was in danger from its powerful neighbours both on the north and the south. In 1564 Ibrahim, the Golconda king, was eager for aggrandizement, and in Bengal Sulaiman Kararani was equally anxious to extend his dominions by annexing Orissa. In 1564-65 Mukunda Deva concluded a treaty with the Emperor Akbar, which was intended as a counterpoise to the ambition of the Afghans in Bengal; but this measure did not long help the Oriya king. In 1567 Ibrahim, who had invaded Rajamahendri unsuccessfully three years previously, conquered the country as far north as Chicacole; and next year Sulaiman Kararani, finding Akbar fully occupied by wars in the west, attacked Mukunda Deva when he had marched to the banks of the Ganges, and forced him to take refuge in the frontier fort of Kotsama. He then detached a part of

his force under his son Bayazid and the notorious Hindu renegade Illahabad Kalapahar, who quickly marched southwards through Mayurbhanj, defeated the king's deputy, and ravaged Orissa. At this juncture one of the Oriya chiefs rose in revolt, and hearing of this Mukunda Deva hurried south to save his kingdom, but was defeated and slain by the rebel forces, whose leader was in his turn killed by the Muhammadan invaders. Raghubhanja escaped from the prison in which he had been confined by Mukunda Deva, and attempted to secure the empty throne, but after some four months' desultory fighting, his death left the Afghans masters of Orissa (1568 A.D.).

General
condition of
the country.

Of the internal state of the country during these five centuries of Hindu sovereignty, we have unfortunately very little record. Both Buddhism and Jainism were neglected by the Ganga and Solar kings, and, if the palm-leaf records preserved in the temple of Jagannath at Puri can be believed, the followers of these religions were persecuted by the former line. The Gangas did not, however, neglect the older Saiva worship; the temples of Megheshwar at Bhubaneshwar and of Chateswar in Cuttack were built during their rule; and though they did not build any temples themselves, their rich gifts to the shrine at Bhubaneshwar show that they continued to be patrons of Saivism. At the same time they seem to have been catholic in their religious tastes, as the great fane of Jagannath at Puri, the massive sun-temple of Konarak and probably also the fine temple of Vishnu at Madhab in this district were built under their orders. The Suryavansa kings followed in their footsteps, and liberally endowed the Puri temple. The reign of Prataparudradeva, the last of this line, although disastrous to the temporal fortunes of the kingdom, was one of great religious activity, owing to the spread of Vaishnavism in consequence of the teaching of the great apostle Chaitanya.

The country was fertile and prosperous, but the people were nevertheless occasionally exposed to the horrors of famine. The palm-leaf chronicles mention one such famine in the reign of Kapilendradeva when the price of a *bharan* of paddy rose to 105 *kahans* of cowries, and another in the same reign of equal intensity, while in the reign of Prataparudradeva the price was once as high as 125 *kahans*. Except in

times of distress, provisions were exceedingly cheap, cowrie-shells were the only medium of exchange among the people generally, and there was no demand for a gold or silver currency.

Literature and the fine arts were cultivated with some success. Standard rhetorical works were produced at the end of the 13th century; several poems date back to the days of the Solar dynasty; while besides these there were works on law, domestic ritual, astrology and even music. These were written in Sanskrit, but the vernacular was steadily gaining popularity, and the earliest Oriya works were composed during the latter part of the Suryavansa rule, such as the Bhagavata, the great religious work of Jagannatha Dasa.

The Afghan conqueror was not content, like previous THE MUHAM- invaders, with levying a ransom from the country, but MADAN marched through it to its southern extremity, besieged and CONQUEST. captured Puri and burnt the image of Jagannath. After completing the conquest the Afghan king took his departure from Orissa leaving his Wazir, Khan Jahan Lodi, Viceroy of Orissa, with headquarters at Cuttack. No sooner was his back turned, however, than the Orissa feudal militia gathered its scattered forces together and revolted. Sulaiman immediately marched southwards at the head of an Afghan army, and quickly succeeded in restoring his supremacy.

On his death in 1573 A.D. his second son, Daud Khan, who succeeded to the governorship of Bengal, threw off allegiance to the Emperor of Delhi, and declared himself independent. In the struggle which ensued, the Afghan king was driven out of Bengal by the forces of Akbar, and fled into Orissa. The imperial forces under Munim Khan and Raja Todar Mal followed hard after him, and compelled him to give battle at Takaroi or Mughalmari in the Midnapore district in 1575. The battle ended with his utter defeat, and Munim Khan advanced upon Cuttack, where a treaty of peace was concluded, Daud Khan renouncing all claim to Bengal and Bihar, and being allowed to retain Orissa as a fief from the Mughal Emperor. It was on this occasion that the victorious Musalman, struck with amazement at the sight of Bhubaneshwar, its lofty temples of stone and its crowds of Brahmans, exclaimed—"This country is no fit subject for conquest or for schemes of human ambition. It belongs entirely to the gods, and is one great region of pilgrimage throughout."

Munim Khan, who had removed his headquarters to Gaur, died there during the rains of 1575, and Daud Khan revolted and overran Bengal with his troops. But next year he was defeated, captured and slain and Orissa became nominally a province of Akbar's empire. The Mughal rule had, however, not been established securely, and the Afghans were in frequent revolt. In 1582, taking advantage of the military revolt of the Amirs, they sallied forth from the hills in which they had taken refuge, recaptured the province, and, under the leadership of Kutlu Khan, extended their sway as far north as the Rupnarayan river. In the beginning of 1584 Kutlu Khan was defeated, but shortly afterwards the Governor of Bengal, weary of the fight, made a treaty with him, by which Orissa was relinquished to the Afghans on condition that they retired from Bengal and acknowledged themselves as tributary. In 1590 Akbar appointed his great Hindu general, Raja Man Singh, Governor of Bihar; and one of the first steps taken by the new Viceroy was an expedition in 1591 to reconquer Orissa. Kutlu Khan died at this time, and the Afghans sued for peace, acknowledging the suzerainty of Akbar on condition that they were allowed to retain their *jagirs*. The settlement was, however, temporary, and hostilities broke out again leading to a decisive battle on the banks of Subarnarekha towards the end of 1592, in which Man Singh defeated the Afghans, forced them back to Cuttack and compelled them to make their submission.

The Afghans, although defeated, were not finally crushed, and during the ensuing years they revolted again and again, whenever opportunity presented itself, until finally Shujaat Khan in 1612, after a fierce and bloody battle, practically exterminated them. This defeat virtually ended the struggle, and Orissa remained henceforth simply a province of the Mughal empire until 1751, when it passed to the Marathas. Shortly after this the English had appeared on the scene, and in 1633 a small expedition headed by Cartwright came from Masulipatam, and sailed up the river to Harishpur. From there they made a journey by land to Cuttack, and obtained permission of the Governor to trade in the country. Their stay was not, however, very long, the factory founded at Hariharpur was abandoned after a few years, and the English withdrew.

The earliest
English
expedition.

Orissa under the Muhammadan rule was hardly well administered. It was too far away to be governed from Bengal, although attempts were from time to time made to do this; and governors sent to rule it, though not perhaps strong enough to throw off control entirely, were sufficiently out of reach to do more or less as they liked, and to retain a large part of the revenue assessment in their own hands. Governor, therefore, followed governor in rapid succession, and each in turn fell under the displeasure of the Bengal ruler and each in turn followed the same practice of squeezing as much as possible out of the country and remitting as little as he dared to his distant master. Internal troubles which beset the Mughal empire in the latter part of the period naturally facilitated this procedure, and good government was impossible even had it been desired.

In 1742 the Marathas came down upon Bengal, and found Orissa an admirable basis for their annual inroads, exactly as the Afghans had for their revolts. Nine years later, in 1751, Ali Vardi Khan, the Governor of Bengal, worried by long years of fighting and borne down by age, bought them off by practically ceding to them the Province of Orissa, and agreeing to pay 12 lakhs of rupees as *chauth* for Bengal. The treaty of 1751 nominally preserved the dignity of the Emperor, and a Musalman chief was appointed to govern in his name. But although the commissions still bore the imperial seal, the Emperor's deputy collected the land tax with the aid of Maratha troopers, and made it over to the Maratha prince. In a very short time the pretence of dependence upon the Empire was given up. The Muhammadan deputy of the Emperor was assassinated, and his successor found himself unable to carry on the appearance of a government. The ancient feudal organization amongst the peasantry and local chiefs, although long since powerless for military purposes, was still capable of harassing and obstructing a weak government. In 1755-56 the nominal deputy of the Mughal Emperor could not even wring the stipulated Maratha tribute out of the province, and begged to be released from his office. A few months later a Maratha obtained the governorship, and from that date until 1803 Orissa remained a Maratha province.

CESSION OF
ORISSA TO
THE MARA-
THAS.

THE MARA-
THA RULE.

Wretched as the state of Orissa had been under the Mughals, a half-century of deeper misery remained under the

Marathas. Stirling remarks: "The administration of the Marathas in this, as in every other part of their foreign conquests, was fatal to the welfare of the people and the prosperity of the country; and exhibits a picture of misrule, anarchy, weakness, rapacity and violence combined, which makes one wonder how society can have kept together under so calamitous a tyranny." The Maratha prince had his capital, or standing camp, at Nagpur in Central India, and waged incessant war upon his neighbours. His deputies, who were constantly changed and imprisoned on their recall, struggled to wring out of Orissa, the only peaceful province of his kingdom, a sufficiency to supply the military necessities of their master. All the offices connected with the raising of revenue were sold to the highest bidder at the Maratha court at Nagpur. Every deputy who came to Orissa had ruined himself in order to buy his appointment, and he well knew that the time allowed him for rebuilding his fortunes would be but short. From the hereditary chieftains he extorted the maximum tribute; the smaller proprietors he ousted without mercy from their lands; and he laid heavy burdens upon the pilgrims of Jagannath. There appears to be no trace of anything like a settled administration. The Maratha cavalry harried the country at stated periods each year and departed with the spoil; and the internal organization of the village formed the only sort of civil government. Each village had its semi-hereditary, semi-elective head, who ruled the hamlet and represented it to Maratha receiver. When the extortion of the latter passed all bounds the village temporized till it could get its headman out of his clutches, and then the whole community decamped with their cattle into the jungle. But though the swamps and forests yielded an asylum from the Maratha spearman the peasantry could not fly from the consequences of their own flight. The province lay untilled, and any failure of the rice crops produced a famine. The famine of 1770, a scarcity of much greater intensity than that of 1866, instead of being mitigated by State importations and relief depots, was intensified by a mutiny of foreign troops. While the people were dying by hundreds of thousands, the Maratha soldiery threw up the last vestige of control, and for many months ranged like wild beasts across the country.

There were no courts or jails, and the country was infested by thieves and dacoits. If an Oriya caught a thief

in his house, he used to brand him by burning, and then let him loose, but sometimes the villagers would rise and kill the thief outright. The Governor's camp-followers lived by plunder, and men struggled to get even this mean post, while to be one of his regular sepoys was to be a king. The Marathas made no roads or embankments, the only roads, if they can be called such, were pathways across the fields and even the old pilgrim road to Jagannath was a rough track, which in the rains was covered with water for miles together. The Marathas systematically stripped all rich pilgrims on the road, while those who escaped the Marathas were liable to be attacked and killed by the bands of dacoits which lurked in the jungles. Poor people never thought of going to Puri unless they were pious; those devotees that did, always travelled in large bands for mutual protection, and rich men were obliged to retain a strong escort of soldiers armed with swords, spears and match-locks. The revenue was collected by means of torture and violence. An underling of the Governor entered a village, called the people together, and ordered one man to give him so many *pans* or *kahans* of cowries, and another so many. If the people did not pay they were first beaten with sticks and then tortured, and in their search for money the Marathas would dig up the floors, probe the walls and sometimes pull them down altogether. A favourite mode of torture was to thrust a brass nail between the finger-nails and the flesh, and another was the *chapuni*. This consisted of throwing the man on the ground, placing two crossed bamboos over his chest, and gradually pressing on them until he consented to pay what was demanded. If he still refused to pay, the operation was repeated on his stomach, back, legs, arms, etc. If the Marathas saw a man was fat, they said he had eaten plenty of ghee and must be wealthy—so all people tried to keep lean. If they saw anyone wearing clean clothes, they declared he could afford to pay—so all people went about in dirty clothes. If they saw a man with a door to his house, they said it was plain he had money—so people either did not keep doors, or hid them when the Maratha underlings were coming. Above all, if a man lived in a masonry house, he was sure to be fleeced as the Marathas held that a man who could build such a house could always afford to pay them Rs. 100. They also had another test to find out whether a man had money. They got together the leaves which serve as plates, and on which is served the family breakfast, and poured water over

them; if this did not cover every part of the leaves, they declared that they were greasy and that the family were all ghee-eaters and must be possessed of money.

From Mr. Motte's account of his journey through Orissa in 1766 we learned that such exactions were not confined to the collectors of revenue. "The followers of the camp" he says, "are plunderers by profession. They are under a chief who accounts with the commanding officer. They carry each an iron rod 10 feet long with which they probe the ground wherever they suspect money or effects to be buried. They smell the rod repeating cabalistical words, and pretend they make their discoveries by the nose, but this is mere affectation, for they know by the ease with which the rod enters whether the ground has been lately dug, however carefully the earth may have been thrown in again, or however artfully the surface may have been formed." At the same time he says oppression was not so flagrant in any place which was a military station, to the support of which the rent of the surrounding country is appropriated. "It is in other words an official fief and the country becomes the property of the *faujdar* for the time being. Now it is the custom of the Maratha troops to plunder as much in the zamindaries tributary to them as in any enemy's country; the tenants of such zamindaries therefore desert their villages at the approach of an army, while the *faujdar*, meeting the commander with a present, obtains an order to be exempted from pillage, the execution of which he attends to himself."

**British
negotiations
with the
Marathas.**

During the rule of the Marathas the British appear to have entered into negotiations for the cession of Orissa on more than one occasion. As early as 1766 Lord Clive instructed an envoy, Mr. Motte, to sound the officers of Janoji, the Raja of Nagpur, on the question of his ceding Orissa for an annual tribute. He was received at Cuttack "with more politeness than state" by the Governor, who was attracted by his proposals and promised to recommend them to his master. The negotiations were abortive, for shortly afterwards Janoji was attacked by the Peshwa, who drove him out of his capital. Subsequently Warren Hastings made an unsuccessful attempt to rent a tract of country from Madhoji, who ruled over the Marathas as regent for Raghuji, the nephew and adopted son of Janoji, who had succeeded in 1772.

In 1779 Madhoji sent a force to invade Bengal in pursuance of a confederacy between the Marathas, the Nizam, and Haidar Ali for the overthrow of the British power. Madhoji was, however, at heart friendly to the British, and, being disgusted at the refusal of the Peshwa to admit his claims to Mandla, undertook the expedition with much reluctance. The British Government, who had despatched a force to the Carnatic by the coast route under Colonel Pearse, to co-operate with the Madras army against Haidar Ali, found little difficulty, therefore, in concluding a treaty in 1781, by which the army of Madhoji was bought off from an invasion. A force of 2,000 Marathas was to be sent from Cuttack with Colonel Pearse to assist in the war against Haidar Ali; and the British, for their part, engaged to pay a lakh of rupees a month for the maintenance of this force, and to send troops to assist in an expedition against Garh Mandla, and obtained a promise that they were to be represented by an agent at the Nagpur court.

The conquest of Orissa by the English in 1803 formed **THE BRITISH CONQUEST.** part of the great campaign against the Marathas in Central India, undertaken by the Marquis of Wellesley. The forces destined for the expedition against Cuttack started from Ganjam on the 8th September 1803 under the command of Colonel Harcourt, and marched along the narrow strip of coast between the sea and the Chilka lake. Manikpatna was reached on the 15th, having been abandoned by the enemy without resistance. It took two days to cross the dangerous channel through which the Chilka communicates with the sea, and had the enemy made a determined stand there, our position would have been one of considerable danger and difficulty. Leaving Narsinghpatna on the 18th, the British forces entered Puri without opposition. After a halt of two days in the holy city, Colonel Harcourt told off a detachment of Hindu sepoys for the protection of the temple, and resumed his march. The Marathas, who had gathered in a camp on the other side of the river which flows past the city, at first opened a sharp fire upon our troops, but soon broke and fled. The British crossed the river, driving them out of the wood in which they had entrenched themselves. The real difficulties of the expedition now began. There were no roads; the cart tracks which did duty as roads were rendered almost impassable by water and mud, and it was with the greatest difficulty that the guns and supplies could be dragged along.

The enemy, though not daring to come to close quarters, threw out skirmishers and impeded the progress of our troops by every means which their superior knowledge of the country put in their power. A night attack on the Maratha camp was made on the 2nd October; the enemy were found leisurely eating their dinner, and were driven out. The Marathas then took up a position before Mukundpur near Pipli. On the 4th October they attacked our advanced guard in vastly superior numbers, but were repulsed with considerable loss. They made good their retreat into the jungles of Khurda; and no further opposition was offered to the march of the British troops, who reached the banks of the Katjuri a few days after the action at Mukundpur.

The crossing of the river was effected safely; and on the 8th October Colonel Harcourt entered Cuttack city by way of the Lalbagh, quite unopposed, the gates being open and all the houses empty. The inhabitants had fled in alarm to Tanghi, ten miles north of the Mahanadi, and did not return until the proclamation issued by Colonel Harcourt and Mr. Melvill, c.s., "the Commissioners for settling the affairs of Cuttack", inspired them with confidence in the new rule. Their fears were probably aroused by the restrictions, which it was deemed necessary to impose on their personal liberty, and which were not completely removed until November 1805. Had the inhabitants been hostile and attacked our rear, or fired on our troops from the houses as they marched through the town to storm the fort, the position would have been a critical one. Every precaution having been taken to guard against any such contingency, preparations for the storming of the fort were at once commenced. Six days sufficed to erect the batteries and make the approaches, and the fort was taken by storm on the 14th October.

Equal success attended the expedition against the town of Balasore which had been despatched from Bengal; and the three principal towns of the province having fallen into our hands, a part of the force was, in pursuance of the original plan of the campaign, despatched under Major Forbes to force the Barmul Pass. Colonel Harcourt with another detachment marched against Kujang by way of Patamundai. The Raja of Kujang had been detected carrying on correspondence with the Rajas of Kanika and Harishpur with a view to entering into a triple alliance, offensive and defensive, against the

British authority. The Raja fled as soon as he received tidings of the near approach of the troops. His elder brother, whom he had kept a close prisoner, was released, and placed on the *gadi*; and a large reward was offered for the apprehension of the fugitive, who was captured shortly afterwards and confined in the fort of Cuttack. His fortifications were dismantled, and the cannon found in them carried away to Cuttack. Before returning Colonel Harcourt completed the success of his expedition by reducing to submission the turbulent Rajas of Kanika and Harishpur. Their forts were also demolished, and the guns found in them taken away. In carrying out these measures no resistance was met with, and they were taken more with a view of impressing the people with a sense of the strength of the British army than from the necessity of putting down any serious armed opposition.

The conquest was effectual and complete, and the district has since enjoyed a tranquillity broken only by the Khurda rebellion of 1817. The *paiks*, or old landed militia, broke out into revolt, in consequence of the ruin and oppression which the early system of English Government brought to them. Owing to the resumption of their service tenures, they had been deprived of the lands which they had enjoyed from time immemorial, and were subjected to the greatest extortion and oppression at the hands of the farmers, *sarbarahkars* and other underlings, to whom our Government entrusted the collection of the revenue, as well as to the tyrannies of a corrupt and venal police. They formed a wild and motley crowd with their war dress of a cap and a vest made of a tiger or leopard skin, a sort of chain armour for the body and thigh, and a girdle formed of the tail of some wild animal; and they further heightened the ferocity of their appearance by smearing their limbs with yellow clay and their faces with vermillion. But savage though their equipment was, they were a foe not to be despised when fighting in their own jungles, and they defeated the troops first sent against them, and for some time held undisputed possession of the country. The insurrection was most formidable in the subdivision of Khurda and that part of the Puri district immediately adjoining it, but the rising was pretty general all over the southern and eastern part of Orissa. In Cuttack the *paiks* burnt the thanas of Asureshwar, Tiran and Hariharpur, and committed various ravages in the country surrounding them. They had, however, no recognized leader of ability in

these parts, though they were secretly encouraged by the Rajas of Kujang and Kanika, and their actions were more those of bands of dacoits than of an army of insurgents. An expedition was despatched against them from Cuttack, a force of about 2,000 *paiks* was utterly routed near Kujang, and the Raja, seeing that further resistance was hopeless, surrendered. By the end of October 1817 British authority was completely restored in Kujang, the detachment stationed there was withdrawn, and military law ceased to be in force. Though bands of *paiks* continued for some time to infest the jungles of Khurda, the rebellion in the Cuttack district was completely stamped out, and the country gradually became pacified, and soon recovered its accustomed tranquillity and security.

Thenceforth the history of Orissa is the history of British India. Annexed at first to the Bengal Presidency, Orissa became part of the newly formed province of Bihar and Orissa in April 1912. A new chapter in the history of Orissa will shortly be opened when the new Province of Orissa comes into being.

CHAPTER III.

THE PEOPLE.

PRIOR to 1872 no regular census of the district by the simultaneous enumeration of the people had ever been taken; but several rough attempts were made from time to time to estimate the number of inhabitants. Stirling, in his account of Orissa written in 1822, estimated the population of the district as 1,296,365 persons, his calculations being based upon an enumeration of the dwellings, allowing 5 persons to each house. Twenty years later the Revenue Survey of 1842 returned the population of Cuttack as 553,073; a subsequent attempt at a census showed it as 800,000; and yet another estimate was made in 1847, according to which the district contained 1,018,979 persons, giving an average pressure of 320 persons per square mile. All these estimates were very rough, as they were made simply by counting the homes through the agency of the police and assigning an average number of inhabitants to each dwelling. In 1855, however, an attempt was made to obtain more accurate figures, special officers being appointed to test the returns by counting the homes and their actual inhabitants in different parts of the district, and thus to ascertain the correct average for each house. The result disclosed an average of slightly over $5\frac{1}{2}$ inhabitants to each dwelling, and the population was returned at 1,293,084. About ten years afterwards another rough census was taken at the close of the famine of 1866, the land-holders being called upon to submit returns of the surviving inhabitants; and it was estimated that the total population amounted to 1,072,463 persons.

GROWTH OF
POPULATION.Early
estimates.

The first census which can be regarded as in any way approximating to the truth was taken in 1872, by which time the population had probably increased materially owing to the return of the people who had fled from their homes during this last great calamity. That census disclosed a total population of 1,494,784 souls with an average density of 470 to the square mile; and in 1881 it was found that the population had risen to 1,738,165, and that the pressure of the population amounted to 494 persons per square mile. The census of

Censuses of
1872, 1881
and 1891.

1891 showed a large increase, the total number of persons recorded being 1,937,671 and the density 533 per square mile. A portion of the increase was due to the annexation of Banki with a population of 57,368 and an area of 116 square miles; but even if the figures for that tract are included in the previous returns, the growth of population was 15.24 per cent between 1872 and 1881 and 7.9 per cent in the decade ending in 1891. The census of 1872, however, was probably incorrect, and it has been suggested that the actual population exceeded the census figures by at least 100,000. This would reduce the rate of growth in the succeeding nine years to 13 per cent, which is about what might be expected during the period when the district was recovering from the terrible famine of 1866. The progress during the next decade would probably have been greater, were it not that the district suffered generally from repeated outbreaks of cholera, and that in certain localities scarcity and the great cyclone of 1885 seriously affected the growth of the population. In the headquarters subdivision, Banki remained almost stationary owing to scarcity almost amounting to famine. In the Kendrapara subdivision the great cyclone of September 1885 destroyed 45 villages in thana Patamundai, most of the inhabitants of which were either drowned or succumbed to the fever and cholera which usually form the sequel of such calamities, while those that survived emigrated to tracts less exposed to the destructive action of storm waves.

Census of
1901.

The result of the census of 1901 was a further increase of 122,642 bringing the population up to 2,060,313, an increase by 6.3 per cent, the diminution of the rate of growth as compared with the previous decade being probably due to the loss suffered by the movements of the people. The general increment was shared by all parts of the district, and the rate of development was remarkably uniform throughout. The growth of population was least in the already densely inhabited thanas, Cuttack, Salipur, Jajpur and Jagatsingpur, and greatest in the sparsely inhabited thanas, Patamundai and Aul on the sea-coast, where the construction of protective embankments led to considerable reclamations of land which had been thrown out of cultivation by the salt-water floods of 1885.

Census of
1911.

By 1911 the population had increased to 2,109,139, the percentage of increase being 2.37 only. The decennial period had been marked by a series of floods leading to crop failures

and outbreaks of cholera ; and the facilities now offered by the Bengal-Nagpur Railway line, which had been opened in the ' nineties ', led to a great increase in emigration, which to a certain extent obscured the real increase in the population. The protected and irrigated areas of Salipur and Kendrapara showed increases of 7.19 and 7.97 per cent respectively, and all thanas showed slight increases except Dharamsala and Patamundai, where the loss is confined to the male sex. The number of emigrants, which was returned as 117,000 in 1901, had increased to 173,000 in 1911.

The census of 1921 for the first time recorded a decrease, Census of 1921. the population falling by 2.11 per cent from 2,109,139 to 2,064,678. In 1918 the rains ceased entirely at the beginning of September, and the important winter rice crop and the *rabi* crop of the following spring almost completely failed. Upon a people already in distress came the severe epidemic of influenza that swept India in the autumn of 1918. 93,000 deaths, or 18,000 in excess of births, were reported during the year. Owing to the pollution of the scanty water-supplies cholera and dysentery broke out early in 1919 in addition to influenza. 18,000 persons died of cholera, 13,000 of dysentery and 54,000 of influenza and fever. The total deaths rose to 113,000, or 43,000 in excess of the births. In Jajpur and Kendrapara subdivisions the crops of 1919 and 1920 were again damaged by floods in the Brahmani river. In spite of this tale of calamity the figures are not as bad as they appear. The number of emigrants, which stood at 173,000 in 1911 was 256,000 in 1921, an increase of 83,000, which more than balances the decrease of 44,500 in the recorded population. These emigrants migrate temporarily only, and are not lost to the district. The natural population of the district, excluding immigrants, but including emigrants was 2,248,559 in 1911, and 2,287,214 in 1921, an increase of 1.7 per cent.

The census of 1931 gave evidence of a steady recovery, Census of 1931. the population having increased since 1921 by 112,029 to 2,176,707, an increase of 5.43 per cent as compared with 11.53 per cent for the province as a whole, and 6.79 per cent for the Orissa division. The density of population to the square mile reached 595. The decade was, on the whole, free from major calamities except for the period from 1924 to 1926. Scanty and ill-distributed rains in 1924, followed by excessive rain in 1925 and a disastrous series of floods in 1926,

produced those conditions of polluted water-supply, under-nourishment and exposure to hardships, which are all that is necessary to enable malaria, cholera and other intestinal diseases, always endemic in the district, to assume epidemic form; and mortality exceeded births in all three years.

The increase in population was greatest in the thana of Banki where it reached 20.39 per cent, part of which goes to make up the heavy loss of 10.81 per cent in the previous decennium, and part doubtless represents expansion of cultivation in this relatively under-developed area. Naturally the increase was least in the areas already most thickly populated, and in Salipur and Kendrapara thanas, which had been the worst sufferers from the floods of 1926, the population declined by 7.88 per cent and 0.52 per cent respectively.

Density.

Density of population is very largely determined by the physical aspects of the three distinct areas into which the district is divided. In the maritime police circles the pressure of the population, which falls in the Aul thana to 324 persons to the square mile, is greatly reduced by a belt of saline soil, in places as much as 30 miles wide, running along the sea and covered by sand, coarse grass or shrub, in which agriculture is almost unknown. In the submontane strip, a region of rocky hill and barren soil, which supports a scanty and semi-Hinduized population, the density is somewhat higher than in the salt tract, but is still comparatively low, being 390 persons to the square mile in the Dharamsala thana and 426 in Banki. The alluvial plain lying between these two extremes is highly cultivated, and has in parts a density of population very little less than that of the most thickly inhabited parts of Tirhut. The pressure is greatest (880 to the square mile) in the Jajpur and Salipur thanas, lying in the fully protected parts of the district, where nearly every field is reached by the canals and distributaries of the great Orissa irrigation system. In the neighbouring thana of Kendrapara the land bears 824 persons to the square mile. Considering that the population is almost entirely agricultural, the density may reasonably be considered to be very great. Taking the district as a whole the density per cultivated square mile is 1,141, the cultivated area according to the returns of 1930-31 being 1,908 square miles. On the other hand, it has been calculated that each square mile of unirrigated land would support 1,167 persons and each square mile of irrigated land

1,515 persons; and there is therefore still room for the expansion of the people on the soil which has been brought under the plough, although the density is already very great.

Unfortunately in the census of 1931 the numbers of Migration. emigrants to other provinces were not extracted, but only 44,572 born outside Cuttack were enumerated in this district, and it is obvious that the number of emigrants is far in excess of the number of immigrants. 36,267 persons born in this district were enumerated in the other districts of the Province and 25,194 in the Feudatory States alone. Large numbers are attracted to the sparsely inhabited Feudatory States, where much arable land is still unoccupied, and to judge from the equality of the sexes the emigration into the contiguous districts is also probably permanent. The net excess of emigrants to the adjoining districts of Balasore and Puri is about 12,000—a result which is only to be expected as Cuttack is the most densely populated district in the division. By far the greater number of emigrants go however to other provinces, particularly to Bengal, Assam and the Central Provinces. Large numbers go to Calcutta and its neighbourhood to serve as domestic servants, *darwans*, industrial workers and labourers. Natives of the district are found working as cooks and domestic servants throughout Bengal, and numerous emigrants go to the Sundarbans as cultivators and field labourers. This over-flow is, however, mostly temporary or periodical. The advent of the railway has naturally afforded far greater facilities for communication with the outside world than previously existed, and has greatly stimulated migration. Natives of the district employed in Bengal and Assam return home at much more frequent intervals than formerly, and on the other hand, the number seeking employment elsewhere has greatly increased. Of the immigrants, the greater portion (36,000) come from the adjoining districts, and the remainder is almost entirely made up of immigrants from other Provinces.

There are only three towns, Cuttack, Jajpur and Kendrapara with a population of over 5,000, and the total number of inhabitants is only 88,556 or 4.06 per cent of the population. The remainder of the people are clustered together in 5,506 villages. The people have hitherto developed no tendency towards city life; and while the rural population has grown very largely during the last 60 years, the towns, Towns and villages.

with the exception of Cuttack, have actually declined. No new centres of industry have sprung up, and the rapid development of commerce and manufactures which is so powerful a factor in the increase of urban population is as yet unknown. The total number of towns-folk has increased only by 21,868 in the last 60 years, and the two towns of Jajpur and Kendrapara actually contain 788 less inhabitants than they did in 1872. Even Cuttack, the capital of Orissa, has not until recent years shown much progress as a city though it focuses the trade of that province. Situated at the first bifurcation of the river Mahanadi, protected by massive embankments from its floods, and forming the starting point of a widely ramified system of canals, it had failed nevertheless to attract the homestead-loving people of Orissa in any large numbers; and though it is the largest town in Orissa, its inhabitants in 1921 still numbered only 51,007 as against 42,667 in 1872. During the last decade however there has been a remarkable increase in the population which now numbers 65,263, an increase of 24 per cent in 10 years, and 53 per cent in the last 60 years, compared with 41.1 per cent for the district as a whole. Of the 14,256 persons added to the population since 1921, however, over 9,000 are males, which suggests an influx for temporary reasons rather than a natural expansion of the population. The location of the office of the revisional settlement in Cuttack with its large staff, and the attendant *karperdazes* and agents of the landlords; and the reconstruction of the railway bridge over the Katjuri, which has led to a large influx of labour and tradesmen to minister to their wants, may be among the causes contributing to a temporary increase in the population. The Oriya generally has an inherent aversion to town life; he will not voluntarily leave his hereditary fields, and even when forced to betake himself to a town, he strives to reproduce his village life in his new surroundings. The distinction generally between the urban and rural population is primarily in respect of occupation, the agricultural class naturally predominating in the villages, while in the towns, where the trading and professional classes form the majority of the population, it is an unimportant section. Except in Cuttack, however, the distinction is not by any means well marked, as Jajpur and Kendrapara comprise a number of more or less scattered 'hamlets, the inhabitants of which are to a greater or less extent employed in agriculture; and even in Cuttack, with its crowded streets and bazars, many parts are distinctly rural in character.

In common with the other districts of Orissa Cuttack has **Sex and** a very marked excess of females over males, there being 1,117 **age.** females to every thousand males. This is true, however, only of the rural area. In the towns the proportions are reversed, and there are only 850 females to every thousand males. The two local castes of fairly high status (Karan and Khandait) have a far larger proportion of women than those of equal rank elsewhere, and among the functional groups the excess of females is greater than anywhere else in the Province. The proportion of unmarried persons is also higher than in other parts of Orissa, viz. 513 out of every thousand males and 327 out of every thousand females.

The number of children under 10 per thousand of the population has fallen considerably since 1881, and the proportion they bear to the number of married women aged 15 to 40 is now lower than in any part of Bihar. This decline may be partly attributed to the fact that in 1881 the district was recovering from the great famine of 1866, i.e. its population was growing at a specially rapid rate, and the proportion of young people was therefore exceptionally high. Even in the periods 1911 to 1921, and 1921 to 1931, however, when the population may be considered to have regained its normal condition, the proportion of children has continued to fall steadily.

Oriya is the mother tongue of the large majority of the **LANGUAGE.** people, but English, Hindi, Bengali and Telugu are also spoken. English is the language of the small English settlement, of the larger Eurasian element, and of the better **educated** Indians. Hindi is used by a large number of Muhammadan residents of the district, and by members of the police force who have been recruited from up-country. There are always a certain number of Bengalis among the **professional** classes in the district; and Telugu is spoken by **some** weavers, sweepers and others who have emigrated from the Madras Presidency. It is sufficiently common to make it necessary to employ an interpreter in the criminal courts at Cuttack.

More than 96 per cent of the people speak Oriya*, or as Oriya it is sometimes called Odri or Utkali, i.e. the language of language.

* This account of the Oriya language has been condensed from Dr. Grierson's Linguistic Survey of India, Vol. V.

Odra or Utkal, both of which are ancient names for the country now called Orissa. Oriya, with Bengali, Bihari and Assamese, forms one of the four speeches which together make up the eastern group of the Indo-Aryan languages. Its grammatical construction closely resembles that of Bengali, but it has one great advantage over Bengali in the fact that, as a rule, it is pronounced as it is spelt. There are few of those slurred consonants and broken vowels which make Bengali so difficult to the foreigner. Each letter in each word is clearly sounded, and it has been well described as "comprehensive and poetical, with a pleasant sounding and musical intonation, and by no means difficult to acquire and master". The Oriya verbal system is at once simple and complete. It has a long array of tenses, but the whole is so logically arranged, and built on so regular a model, that its principles are easily impressed upon the memory. It is particularly noticeable for the very complete set of verbal nouns, present, past and future. When an Oriya wishes to express the idea embodied in what in Latin would be called the infinitive, he simply takes the appropriate verbal noun, and declines it in the case which the meaning necessarily requires. As every infinitive must be some oblique case of a verbal noun, it follows that Oriya grammar does not know the so-called infinitive mood at all. In this respect Oriya is in an older stage of grammatical development than even classical Sanskrit, and among Indo-Aryan languages can only be compared with the ancient Sanskrit spoken in the Vedic times.

The archaic character, both of form and vocabulary, runs through the whole language, and is no doubt accounted for by geographical position. Orissa has ever been an isolated country bounded on the east by the ocean, and on the west by the hilly tracts inhabited by wild aboriginal tribes. On the south the language is Dravidian and belongs to an altogether different family, while, on the north, it has seldom had political ties with Bengal. On the other hand, the Oriyas have been a conquered nation. For eight centuries Orissa was subject to the kings of Telinga, and, in modern times, it was for fifty years under the sway of the Bhonslas of Nagpur, both of whom left deep impressions of their rule upon the country. On the language they imposed a number of Telugu and of Marathi words and idioms which still survive. These are, so far as we know, the only foreign elements which have

introduced themselves into Oriya, except the small vocabulary of English court terms, and a few other English expressions, which English domination and education have brought into vogue. Cuttack, especially the town, is however to a certain extent affected by Bengalisms, owing to the residence there of a number of Bengalis who have been settled in the district for some generations. In former times sales of Orissa estates for arrears of land revenue were held in Calcutta, and the purchasers were frequently Calcutta Bengalis who settled in Cuttack. These Bengalis and their descendants have developed a curious jargon of their own, their ancestral language being interlarded with Oriya and Hindi expressions. Owing to their frequent use of the word *kare*, a corruption of the Oriya *kari*, their speech is vulgarly known as *kera Bengali*; and this mongrel language has in its turn reacted on the local Oriya.

Oriya is encumbered with the drawback of an excessively awkward and cumbrous written character. This character is, Written character. in its basis, the same as Devanagari, but it is written by the local scribes with a stylus on a *talpatra* or palm-leaf. These scratches are, in themselves, legible, but in order to make them more plain, ink is rubbed over the surface of the leaf and fills up the furrows which form the letters. The palm-leaf is excessively fragile, and any scratch in the direction of the grain tends to make it split. As a line of writing on the long, narrow leaf is necessarily in the direction of grain, this peculiarity prohibits the use of the straight top line, or *matra*, which is a distinguishing characteristic of the Devanagari character. For this the Orissa scribe is compelled to substitute a series of curves, which almost surround each letter. It requires remarkably good eyes to read an Oriya printed book, for the exigencies of the printing press compel the type to be small, and the greater part of each letter is this curve, which is the same in nearly all, while the real soul of the character, by which one is distinguished from another, is hidden in the centre, and is so minute that it is often difficult to see. At first glance, an Oriya book seems to be all curves, and it takes a second look to notice that there is something inside each.

The earliest example of the language which is at present Literature. known consists of some Oriya words in an inscription of king Narasimha Deva II, dated 1296 A.D. An inscription of Narasimha Deva IV, dated 1395 A.D., contains several

Oriya sentences, which show that the language was then fully developed, and was little different from the modern form of speech either in spelling or in grammar.

Some popular songs like the *Kesavakoili* or Cuckoo song about Krishna appear to be the earliest specimens of the Oriya literature, but the first great literary work is the Mahabharata of Sarala Dasa which was composed in the reign of Kapilendra Deva (1435-1469). The poet has retold the Mahabharata story in simple and expressive language with additions of his own. Sarala Dasa is a popular national poet, and acquired celebrity even in Bengal. His Mahabharata was translated into Bengali not later than the early part of the 16th century, and the 'Birata Parva' portion of what is called the Sarala Mahabharata still survives in Bengal. Next in point of time are the Ramayana of Balarama Dasa, and the Bhagavata of Jagannatha Dasa, both of the first half of the 16th century A.D. The earliest works extant are all religious, but, later, profane literature appeared, though at first it dealt only with mythological stories. Among the oldest of these is the poem *Rasa-kallola* by Dina Krishna Dasa. This poem describes the early career of Krishna, and is a favourite with the Oriyas; its versification is peculiar in making every line begin with the same letter *ka*. The most famous of the Oriya poets is Upendra Bhanja, who, following Dinakrishna Dasa, flourished in the beginning of the 18th century. One of the royal family of Gumsur, a petty hill State in the north-west of Ganjam district, he was driven to take refuge in Orissa in the course of a civil war, and there devoted his life to Oriya literature. Of his voluminous compositions, forty-two are at present known, the bulk of them consisting of poems with love-stories as their theme. He was apparently the first Oriya poet to free himself from the trammels of exclusively religious and mythological influences. His poems labour under the defects of obscenity and unintelligibility; but they show at the same time a master's hand in letter-selection or rhetorical excellence. In these qualities his only rival is Abhimanyu Samanta Singhar, a zamindar of Golakunda in the Jajpur subdivision of this district, who died in 1806 when only 49 years old. His poem *Bidagdha-Chintamani* is a veritable store-house of rhetorical excellence, while its latter cantos explain in lucid lines the abstruse doctrines of Vaishnavite *Bhakti* and *Prema*.

The modern period of Oriya literature begins with the writings of three eminent authors—Radha Nath Ray, Madhusudan Rao and Fakir Mohan Senapati. The first of these is regarded as the founder of a new school of poetry in Orissa, and his influence is distinctly visible in the writings of many modern writers. To Fakir Mohan Senapati may be unhesitatingly accorded the honour of having first written in simple idiomatic Oriya unencumbered with Sanskrit forms. His prose writings are replete with humour, and his racy style shows how forcible the Oriya language can be in the hand of a master. The Baptist missionaries have played an important part in the development of modern Oriya literature. They were the first to make Oriya type, and print books in the Oriya language. Books in Oriya were printed in the Mission Press at Serampur in Bengal as far back as 1811.

Orissa is the holy land of the Hindus, which through all RELIGIONS.
its vicissitudes has held its high place in the religious esteem Hindus.
of the people. The Puranas are full of descriptions of its sanctity, and it is declared to be the favourite abode of the Devatas and to boast a population composed, more than half, of Brahmans. From end to end, we are told, it is one vast region of pilgrimage (*tirtha*); its happy inhabitants live secure of a reception into the world of spirits; and those who visit it and bathe in its sacred rivers obtain remission of their sins. According to popular belief, even the victorious Musalman who led Akbar's invading host into this land of sanctity, was struck with amazement at its sacred river, the Mahanadi, its vast crowds of Brahmans and its lofty temples of stone and exclaimed "This country is no fit subject for conquest or for schemes of human ambition. It belongs entirely to the gods and is one great region of pilgrimage throughout". From the moment the pilgrim crosses the Baitarni river he treads on holy ground; and in these circumstances it is not surprising that the great bulk of the population of the district is composed of Hindus, who with 2,106,830 souls account for 96.7 per cent of the people.

Practically all the remainder are Muhammadans, who Muham-
number 66,104 persons, or 3.03 per cent of the people. It is madans.
somewhat strange at first sight that they are not more numerous, considering the strong footing they once had in the district. Badaoni, who was a zealous Moslem, describes Cuttack as being a mine of unbelief when it was subdued by

Sulaiman, but the Muhammadans effectually conquered the Province and took complete possession of it in 1568 A.D.; and subsequently in Akbar's reign, when the Afghan kingdom of Bengal was overthrown by the Mughals, the Afghans migrated in large numbers into Orissa and there held large fiefs and independent power. When they again rose in revolt, they were signally defeated, and in order to deprive them of the means of political combination, Shujaat Khan distributed them among the villages in the interior, but allowed them grants of lands sufficient to maintain their dignity. Orissa long remained a dependency of the Mughal Empire, and the Afghans continued in possession of their *jagirs*; but with the lapse of centuries they dwindled in numbers and in influence. The Muhammadan conquest was not only late chronologically, but it failed to attain that permanence and completeness which it obtained in Bengal. It was a conquest rather than a colonization; the Mughals and Afghans made few converts to Islam, and the present Muhammadan residents of the district are nearly all descendants of the invaders. Their number has increased but little since 1872, when they amounted to 40,262 persons, but on the other hand their growth has been relatively greater than that of the followers of other religions. They form a small community, mostly in easy circumstances—a fact which favours their multiplication at a rate hardly attainable by the general mass of the population.

Christians.

Christianity was practically the only other religion represented at the census of 1931. The number of Christians (2,873) is still comparatively small and they are almost entirely confined to Cuttack town, which is the headquarters of the Baptist and Roman Catholic Missions. The labours of the Baptist missionaries in Cuttack date from 1822. The first Indian convert was baptized six years afterwards, and by 1872 the total number of Indian Christians was 1,911. In the famine of 1865-66 over 650 children, whose parents had died of starvation or, owing to the rigours of the famine, had deserted them, were cared for by the missionaries and brought up in the Christian faith. The growth of the community in the Cuttack district has not been rapid. There are five churches of the Baptist faith and order, the largest being in Cuttack town and the others in villages not a great distance away. These churches are now united in a Church Union which it is hoped will be a nucleus for the development of an

Indian church. At the present time there are under the auspices of the Mission several primary schools for boys and girls in the *mufassal*, and in Cuttack itself there is a middle school and a boarding school for girls. Besides these there is a Women Teachers' Training class from which for many years teachers have gone to serve in girls' schools in all parts of Orissa. There is also a school for Anglo-Indian children which teaches up to the Senior Cambridge Examination. This school—the Stewart school—has hostels for boys and girls attached. The Mission high school is now, in accordance with the principle of devolution adopted by the Mission, under the management of the community. A Christian training college for men has also been started. The Mission Press, which has the distinction of being the oldest press in Orissa, still continues to produce literature contributing to the educational and spiritual uplift of the people. The Cuttack Leper Asylum opened by the Mission to Lepers in 1919 is under the superintendence of one of the resident Baptist missionaries.

The Roman Catholic Mission has been established in the town of Cuttack since 1845 and has a congregation of about 200 Roman Catholics, nearly one-half of whom are Europeans and Eurasians, the remainder being chiefly immigrants from the Madras Presidency. The Mission has a convent and a church; the latter, which has accommodation for 300 worshippers, was built in 1858-59 and enlarged about 1885. It also maintains an orphanage for Eurasian girls which was founded in 1880 and contains on an average 60 inmates. The latter are under the direction of six sisters sent out by the congregation of the Sisters of St. Joseph; and the same order provides six sisters who do the work of nursing sisters in the Cuttack General Hospital; the priests of the Mission are sent from Spain by the congregation of the missionaries of Saint Vincent de Paul.

Vaishnavism is predominant among the common people Hindu sects. of this district, and the causes of this predominance are not far to seek. The existence of the temple of Jagannath, who is regarded as the incarnation of Vishnu, has exerted a powerful influence on the popular faith; and besides this the famous reformer Chaitanya passed an important part of his life in these parts, and made a lasting impression upon the popular mind by the purity of his life and teachings.

Vaishnavism is still struggling to divert the popular mind from the number of gross animistic accretions by which the religion of the mass of the population is encumbered; and it is Vaishnavism which mainly distinguishes the semi-Hinduized aborigines in the plains of Orissa from their animistic brethren in the hills, though its adoption is merely nominal and its high ethical principles do not shape the moral conduct of the people. Genuine Oriyas belonging to sects other than that of the Vaishnavas are very few in number. Saktas, the followers of Sakti or the Goddess Durga or Kali, are to be found among the Brahmans and Kshattriyas of the district and among the Bengali immigrants. The only other two sects represented, the Saivas and Ganapatyas or followers of Ganapati, bear a very small ratio to the total Hindu population. The Parwars of Rajputana, who are Jainas, have a temple consecrated to the worship of Parasnath at Chaudhri-bazar in the heart of the Cuttack town.

Religious
life.

The religion of the people exhibits very clearly the blending of Hinduism with Animism, and the process of assimilation appears to be illustrated by the common legend of Jagannath.* Here we find the aboriginal people worshipping a blue stone in the depth of the jungle until the deity grows tired of the jungle offerings of the primitive people and longs for the cooked food of the more civilized Aryan race. When the Aryan element at length comes on the scene, the rude blue stone disappears and gives place to a carved image. At the present time this two-fold worship coexists throughout Orissa. The common people have their shapeless stone or block which they adore with simple rites in the open air; while side by side with it is a temple to one of the Aryan gods with its carved image and elaborate rites. Every village pays homage to the Gram Devati† or Thakurani, as these stones and stocks are called, and reverence her as the tutelary goddess of their small community.

The goddess is commonly represented by a piece of shapeless stone, smeared with vermilion and surrounded by several smaller pieces of stone, also vermilion-daubed and shapeless, which represent her children. Carved images are

* See Sir W. E. Hunter's Orissa, Vol. I, pp. 88—95.

† For a fuller account see note on the Gram Devati or Tutalary Deity of Orissa by Babu Jamini Mohan Das, J. A. S. B., Vol. LXXII, Part iii, no. 2.

sometimes, though rarely, met with, and occasionally the trunk of some tree, supposed to possess supernatural properties, is smeared with vermilion and worshipped as the village goddess. Besides the generic name Gram Devati, each goddess has a separate specific name, which is commonly one of the thousand names of the goddess Kali. The general idea seems to be that she is like a mischievous old witch; and earthen figures of horses, elephants and other animals are placed before her by the superstitious rustics, as it is believed that she wanders about at night.

The most noticeable feature of the Gram Devati worship is the non-priestly caste of the men who conduct it, the Bhandari, Mali, Raul or Bhopa being usually the priest. They hold small rent-free grants called "*mafi Gram Devati*," i.e. lands which were left unassessed for her worship at the time of the first regular settlement; and they also receive daily doles from the rich men of the village and weekly doles from the poorer people: the latter are given on Thursday, commonly regarded as Lakshmi day, or the day of the goddess of fortune, which is considered a specially auspicious day for the regular *puja* of the Gram Devati. The first essential in this worship is a bath which keeps the Thakurani cool and well disposed towards the village. The bath includes smearing with *ghi* and turmeric, when it is completed a paint of vermilion is put on, and after the toilet is over a light oblation (*bhog*) of fruits and sweetmeats is offered. The daily *puja*, including both bath and *bhog*, costs about an anna, and if this small expenditure cannot be met, the priest contents himself by pouring a little water over the goddess, though sometimes even this inexpensive offering is dispensed with. The worship of the Gram Devati is conducted with great pomp and ceremony on the Mahastami or second day of the Durga Puja, and special offerings of sweetmeats and fruit are made on all festive occasions. The Thakurani, who is supposed to possess more powers for doing or averting mischief than for doing positive good, receives special attention on the outbreak of any epidemic disease. Within her own village she is believed not to commit any mischief, and epidemics are supposed to be the work of neighbouring goddesses whom the tutelary village goddess expels by persuasion or superior force, if she is duly propitiated. The occurrence of a single case

of cholera in the village is the signal for "Thakurani Marjana" or washing of the Thakurani. The villagers immediately raise the necessary funds by subscription and propitiate the goddess by a cooling bath and refreshing offerings, the ceremony being repeated, if the epidemic does not cease.

The people have a peculiar means of knowing the wishes and decrees of the goddess. In almost every village there is a male or female medium, called Kalisi, through whom the goddess communicates with the people. The presentation of a betel-nut is the token of engaging the Kalisi, whose services are specially in demand on the occasion of an outbreak of cholera. Before the time appointed for the Marjana, he takes a purifying bath, puts on a new cloth, and paints his forehead with vermilion. Then holding two canes in his hands, he appears before the Gram Devati, and with dishevelled hair swings his body to and fro. After a time he begins to tremble, and in the course of his confused utterings gives out some secrets of the village to win the confidence of the people. He then predicts evil to some and good to others, prescribing at the same time the remedies required, which take the shape of offerings to the goddess and special favours to himself. While going through these antics, the Kalisi is sometimes offered a fowl, the blood of which he drinks after pulling off the head.

Certain village goddesses are regarded as "Parama Vaishnavis" or devoted followers of Vishnu, and animal sacrifices are not allowed before them. Probably owing to the spread of Vaishnavism, such sacrifices are only made sparingly before the other goddesses; but in the Mahastami *pūja* and other special *pūjas* offered in fulfilment of vows, animals are generally sacrificed. Fowls are also let loose before some of the goddesses by the upper classes of Hindus, and are killed and eaten by the lower classes.

It seems hardly open to question that this worship of the malevolent spirit, through the medium of shapeless stones, is an offshoot of the fetishism of the aborigines. The fact that all Hindus from the highest to the lowest make the Gram Devati the object of their adoration shows how the beliefs of the whole Hindu community have been permeated by this fetishism. It still includes, though to a restricted extent, the

sacrifice of animals, which is one of the most characteristic features of aboriginal worship; and the offering of fowls, which are so rigorously excluded from the houses of the upper classes of Hindus, can hardly be said to be anything else than an aboriginal practice. The restriction of the priestly function to the Sudra castes is another link in the chain of circumstances which indicate the aboriginal origin of this form of worship. While the Brahman stood aloof, the mass of the people, leavened in their lower strata by the aborigines, adopted the faith which, by its easy explanation of the origin of evil, appealed most strongly to their simple minds. The Brahman could not, however, long stand against the popular current which thus set in, and he eventually invented more refined forms of worshipping the same malevolent spirit. The aboriginal mode of village worship seems thus to have preceded the Pauranik rites of Sakti worship, although the present names of the goddesses are apparently of later date.

The impression gained of the Oriya is likely to vary with the class with which the observer comes in contact. The most highly educated classes are as intelligent as any part of the province; but in the villages the more well-to-do people are generally divided into factions and much given to litigation. The ordinary uneducated cultivator is superstitious and obsessed with caste prejudices; he is less industrious and slower to understand his own rights and interests than the Bihari peasant; but his home is neater and tidier. He is generally law-abiding, conservative in his habits and remarkably free from the drink evil. The people are friendly, good humoured, kindly and hospitable towards each other. The Brahmins are of a refined and intellectual type, and the Karans have quite as high a reputation for acuteness as the Kayasthas of Bihar.

Speaking of the present-day condition of the Oriyas Mr. D. H. Kingsford, I.C.S., remarked in his Settlement report of Balasore :—

“ When the valour with which the peasant militia of this district repulsed the early Muhammadan invasions, and the courage and fearlessness they exhibited in 1730, when, at a distance from their

homes and country, they subjugated Bihar, are considered, it must be admitted, that the decline in the military spirit among this people is an extraordinary point in the development of their character."

A variety of causes probably contributed towards this deterioration, and the mis-rule or rather want of government after the fall of the Hindu dynasty hastened it. The military organization under the Hindu kings was feudal. The *paiks*, or the native soldiery, pursued the dual avocation of agriculturists in times of peace and of soldiers in times of war. With the conquest of Orissa by the Muhammadans matters changed entirely. There was now no national king to whose call the *paik* would respond. He could not take military service under the iconoclastic Muhammadans, nor could the latter, if they were to mind their own safety, enrol them in their armies. The *paik* therefore became apathetic, fell silently back on his agricultural pursuits and gradually lost all military instinct. Moreover the spread of neo-Vaishnavism, particularly the teachings of Chaitanya, profoundly influenced the people. Mr. R. D. Banarji, M.A., thus speaks of the effect of religion on the people of Orissa: " Suddenly from the beginning of the 16th century a decline set in in the power and prestige of Orissa with a corresponding decline in the military spirit of the people. This decline is intimately connected with the long residence of the Bengali Vaishnava saint, Chaitanya, in the country. If we accept only one-tenth of what the Sanskrit and Bengali biographies of the saint state about his influence over Prataparudra and the people of the country, even then, we must admit that Chaitanya was one of the principal causes of the political decline of the empire and the people of Orissa. Considered as a religion Indian ' Bhakti-marga ' is sublime, but its effect on the political status of the country or the nation which accepts it is terrible. The religion of equality and love preached by Chaitanya brought in its train a false faith in men and thereby destroyed the structure of society and government."

It should also be remembered that the Oriyas have suffered severely at the hands first of the Muhammadans and then of the Maratha conquerors. From the end of the 17th century they had been continually harried and oppressed ; under the Mughal Emperors a greedy and generally disloyal Deputy

wrung from the province an uncertain revenue; the wretched peasantry were ground down beneath a military occupation; and a rapid succession of rude soldiers harried the country and got together as much plunder as they could wring from the people. But miserable as the lot of the Oriyas had been under the Mughals, it was worse under the Marathas. The misrule of these marauders presents a dismal scene of extortion, desolation and rapine; their cavalry harried the country at stated periods each year; and to quote Stirling's account, "their administration was fatal to the welfare of the people and the prosperity of the country, and exhibits a picture of misrule, anarchy, weakness, rapacity and violence combined, which makes one wonder how society can have kept together under so calamitous a tyranny". Fixed property did not exist: the people fled to the swamps and forests as an asylum from the Maratha spearmen; and the land remaining untilled, the horrors of famine were added to the general misery. It would have been strange if the Oriya character had not been affected by this grinding tyranny; and it is not surprising that the bitter experience of their fore-fathers should have discouraged thrift, promoted improvidence and tended to make the people a feeble and timid race.

There is, however, another influence at work which accounts very largely for their want of spirit and enterprise. From time immemorial they have been a priest-ridden race, kept in subjection by the Brahmans and subject to all the paralyzing influences of religious superstition and caste prejudice. Nowhere else do the ancient caste* rules exercise such an influence. Men following precisely the same occupation are sometimes separated by so vast a social gulf that the slightest bodily contact with each other brings pollution; and the higher cannot touch any article that the lower has handled until it undergoes purification. Not only had the Brahmans the monopoly of education, but no one outside the priestly caste might plant even a cocoanut-tree. These profitable trees were only planted by non-Brahmanical hands after the advent of the missionaries, and the native Christian, who had been the first to break the immemorial custom, was regarded for many years as a man lying under the wrath of the gods. Some thirty years ago a Government official, who imagined that he would increase the revenue by planting cocoanut-trees

* See Orissa by Sir W. W. Hunter, Vol. II, pp. 139-141.

along the Machgaon canal, found, when the time came to sell the fruit, that the Brahmans had forbidden any Hindu to purchase the nuts and was at last driven to get the best price he could from the Indian Christians in Cuttack. An equally striking instance of the strength of caste prejudice is the existence of the caste Chhatra-khia which is made up of the people who lost their caste in 1866 for eating in relief-kitchens (*chhatra*). The caste is divided into an upper and lower sub-caste. Members of each sub-caste marry within that group, irrespective of the caste to which they originally belonged; but no intermarriage is possible between the members of the two sub-castes.

PRINCIPAL
CASTES.

Khandaits.

The Khandaits are by far the largest caste in the district, numbering according to the census returns of 1931, 548,664, or more than a fourth of the entire population. Besides contributing the largest share to the district population, the Khandaits have strong claims to be regarded as the most interesting caste in the district; and Cuttack may be aptly termed the land of the Khandaits, just as Puri is the district of the Chasa caste. There is some difference of opinion as to the origin of the word Khandait. The general view is that it means swordsman (from *khanda*, a sword) but another explanation which has been put forward, and with much plausibility, is that Orissa was formerly divided into *khandas*, or groups of villages corresponding to the *pargana* of Muhammadan times, and that there was over each a headman called *khandapati*, which was subsequently corrupted to Khandait. Whatever may be the etymology* of the name, it is admitted that the Khandaits are the descendants of the people who formed the peasant militia under the ancient Rajas of Orissa. The armies of those chieftains consisted of various castes and races, the upper rank being officered by men of good Aryan descent, while the lower ranks were recruited from the low castes alike of the hills and plains. As members of the militia, the Khandaits had to serve as soldiers in times of war, and in return they were given lands to hold under a strictly military

* In the Bengal Census Report of 1901 (p. 389) it is stated that "it is a significant fact that one of the caste *Santaks* or devices endorsed on documents is a *khanda* or arrow." It is stated, however, by Babu Jamini Mohan Das that the only caste which is known to use the *khanda* as a *Santak* is the low unclean caste of the *Kandras*. The Khandait *Santak* is a *katari* or dagger.

tenure. Their characteristic occupation and their consequent relation with land all tended to alienate them from the communities to which they had originally belonged, and eventually led, on the establishment of a well-defined caste system, to the formation of the Khandait caste.

The different variety which these people exhibit and their free intercourse with some other castes tend to show that the Khandaits cannot trace their descent from a single origin, and that the caste is only a heterogeneous group, which is perhaps made up at the one end of Aryan immigrants and at the other of recruits from a number of indigenous non-Aryan tribes. They are divided into two sub-castes; (i) The Mahanaik Khandaits and (ii) the ordinary Khandaits. The latter, who occupy the position of ordinary cultivators, appear to correspond to the rank and file of the old feudal militia, while the former, who hold large *jagir* tenures, may represent the officers of that body; an almost impassable gulf seems to exist between these two sub-castes, and there is nothing common between the two, except the name itself. On the other hand, cases of intermarriage between the Khandaits and members of other castes of equal standing are not at all rare. Karans, a fairly high caste of Aryan descent, are often found marrying members of Mahanaik Khandait families, and intermarriage between the Chasas, who, as stated below, have an admixture of aboriginal blood, and the ordinary Khandaits is quite a common occurrence. The characteristic occupation of the Khandaits no longer existing, free intercourse has sprung up between them and the Chasas, and there is hardly anything at present to distinguish members of the two castes. This is reflected in the Census figures, for whereas in 1901, 422,573 Khandaits and 236,466 Chasas were enumerated, in 1931 the figures were 548,664 Khandaits and 153,663 Chasas; and it is obvious that many of the latter caste must have passed over into the one of slightly higher social standing.

The Chasas, with a strength of 153,663 persons, are next **Chasas.** to the Khandaits the most numerous agricultural caste in the district. They are known to be recruited mainly from various aboriginal tribes. As their name implies, they are an agricultural caste, the members of which almost all hold land as occupancy raiyats or work for others as field-labourers. Like the Khandaits, they are the well-to-do peasantry of the villages,

and are among the most skilful of all the Oriya cultivators. Their distribution appears to be governed by the hereditary occupation of the caste, as they congregate most thickly in the fertile deltaic plains, and are least numerous on the west, where there is a rocky fringe of hills and sterile uplands, and on the extreme east, where there are marshy jungles quite unfit for the plough. The thanas of Cuttack, Salipur, Tirtol and Jagatsinghpur, lying between the hills on the west and the swamps on the east, are the parts best adapted for cultivation; and these naturally are the thanas in which the Chasas are mostly to be found. They are divided into four sects, the Orh, Benatiya, Chukuliya and Sukuliya, of which the Benatiya stands first in rank and the Sukuliya and Chukuliya lowest; there is no material difference between the latter, except that the Sukuliyas do not allow their females to appear in public. In this district a Benatiya may intermarry with the other sub-castes on payment of a fine to his *panchayat*, and all the sub-castes may drink and smoke, but may not eat cooked rice together. The Orh Chasas, it is said, were the first of the aboriginal tribes who settled in Orissa and began to cultivate the soil; and they allege that, as they were very numerous, the country was called after them. The Benatiya is said to have been created from a tuft of *benā* grass, or to be descended from the early settlers who first made the land fit for cultivation by clearing the *benā* grass away.

Brahmans.

The Brahmans, though constituting by far the most powerful caste in Cuttack, occupy a position between the two castes mentioned above, and at the census of 1931 they amounted to 186,021 persons. They belong to the Utkal class of Brahmans, which is one of the five great territorial groups into which the Gaura Brahmans of Northern India are divided. Antiquarian research has not yet been able to fix the time when the division took place, but it may perhaps be assumed that the colonies of Brahmans were separated by local usage, and that this separation was marked by geographical limits before the wave of Buddhism passed over the Utkal country. Buddhism deprived the Brahmans of their priestly functions and drove them to more worldly pursuits for their subsistence. Most of them resorted to agriculture, while a few are believed to have taken service as cooks in the temple of Jagannath. In the 5th century A.D. the ruling dynasty revived the Brahmanical faith in Orissa, not by restoring the priestly

functions to the degraded Brahmans who, forsaking the Vedas, had turned cultivators and cooks, but by importing 10,000 Brahmans of pure faith, fit to perform Vedic rites, from Kanauj, the greatest stronghold of Hinduism in Northern India. Tradition relates that these Brahmans performed ten great "horse-flesh sacrifices" (*Asvamedha Jajna*) on the bank of the sacred Baitarni near the town of Jajpur, and a flight of steps, called Dasasvamedha Ghat, yet marks the spot near which the sacrifices were performed. These imported Brahmans gradually spread over the whole of Orissa, and the colonies which they formed with the aid of royal grants of rent-free lands are still known as *Sasans*.

In course of time, however, the process which caused the original division of the Gaura Brahmans into five groups was repeated, and two endogamous subdivisions were formed on the two sides of the river Brahmani, the northern subdivision being called Jajpurotriya and the southern Dakshinotriya. Jajpur or Biraja Kshetra is the centre of the former, and still contains the largest proportion of Brahmans in the district. Puri is the centre of the latter, though colonies of Dakshinotriya Brahmans have crossed the boundary since the cleavage and settled in the northern region. Throughout Orissa, Brahmans taboo wine, but those who worship the goddess Kali are permitted to drink it, and the temple of the great goddess Biraja at Jajpur probably became a centre for the spread of this objectionable habit. This seems to be the only feasible explanation of the legend that the water of the sacred Baitarni became wine and that the Jajpur Brahmans degraded themselves by drinking it; and it is noticeable that the Southern Brahmans give this as a reason for considering the Northern Brahmans inferior to themselves.

It must have been increasingly difficult for a growing community to keep strictly within the limits of the religious duties prescribed by the *Shastras*; and a further split was, therefore, caused between those in the enjoyment of royal patronage who continued to observe them, and those whom necessity forced to depart from them. Each territorial subdivision has thus been divided into two groups called Srotriya or Vaidik and Asrotriya or non-Vaidik. The former includes the Sasani Brahmans who depend, for their subsistence, chiefly on royal grants of rent-free lands, and the latter

includes the following classes :—(1) Sarua or Paniari, growers and sellers of vegetables; (2) Panda, Pujari or Deulia, professional temple worshippers or cooks; and (3) Marhia, priests of low castes, who receive alms from the humble clients whom they serve and enjoy the notoriety of being fed first in the feasts connected with *prayaschitta* or purification ceremonies. The Srotriyas do not intermarry with the degraded Mastans or Mahastans of the pre-Buddhistic period. The non-Brahmanical occupations and titles of the latter mark them out as a class quite distinct from the rest of the Brahmans of Orissa; they are called Balaramgotri, apparently from the fact that the plough is believed to be the distinctive weapon of the god Balaram.

The Utkal Brahmans were originally all Saktas, but now they all keep the *salgram* and worship the four gods, Vishnu, Siva, Ganesh, and Surya, and the goddess Durga. Chaitanya converted some of the Brahmans to Vaishnavism, but even these converts worship the four gods and the goddess mentioned above on ceremonial occasions. The Gram Devati receives the same degree of homage from this caste as she does from the other castes in Orissa. The ten *sanskaras* or purifying ceremonies are a distinctive feature in the life of the Utkal Brahmans. According to the *Shastras*, they should be performed at different periods of life, but in Orissa all the ceremonies are performed at the time of *upanayana* or assumption of the sacred thread. The Utkal Brahmans observe most rigidly the limits of age laid down in the *Shastras* for the marriage of girls, giving them in marriage usually before ten and seldom after twelve, unlike the other high castes, the Kshattriyas, Karans, and Khandaits, whose daughters are rarely married before twelve and are sometimes kept unmarried up to what is regarded as an advanced age even among educated reformers.

The Utkal Brahmans have *gotras* indicative of descent from old *rishis* like the other Brahmans of Northern India. The *gotra* groups are all exogamous, and some of them have been further broken up by titles indicating descent from more recent ancestors. Below this again there are still more subdivisions leading to a system of hypergamy, which, however, is far less marked in Orissa than in Bengal. In this connection, mention may be made of the remarkable fact that among the Utkal Brahmans traces are found of the existence

of the totemistic beliefs common among the Dravidian races. A Brahman of the Atreya *gotra*, for instance, will not sit on the skin of the deer or eat its flesh. A Brahman of the Kaundinya *gotra* similarly does not sit on the skin of a tiger, and a Brahman of the Gautama *gotra* offers special *pūja* to the cow on the occasion of marriage. The usage is explained, not by any direct descent from the animals revered, but by the legend that the *gotra rishis* who were invited to the *jajna* of Daksha fled in the disguise of animals, when the *jajna* was broken up by Siva. This is, no doubt, a fiction invented to explain an aboriginal belief, which the Brahmans apparently imbibed from the Dravidians with whom they came in contact. There is, however, no evidence that there was any actual infusion of Dravidian blood among the pure Brahmans who were imported from Kanauj.

The Gauras, who number 145,132, are the great pastoral ^{Gauras.} caste of Orissa, corresponding to the Goals in Bengal and Bihar. They nearly all possess cattle and are chiefly engaged in breeding cows and in selling milk, curd and *ghi*; about 25 per cent are also engaged in agriculture, and some serve as *muliyas* or hired agricultural labourers. They also work as domestic servants and very largely follow the profession of *palki*-bearers. There are several sub-castes, of which the Mathurapuri ranks highest; in Balasore its members do not carry the *palki*, but in Cuttack all Gauras will do so. The Gopapuri sub-caste is noticeable for the fact that its female members are almost the only women in Orissa who do not wear nose ornaments—a circumstance which, they pretend, connects them with Krishna's mythical milk-maids. The young women of both sub-castes prepare the butter and *ghi* which the older ones take round for sale with their milk. Field labour of all kinds is eschewed by the Gaura women. The sub-caste known as Magadha ranks last, and is probably a recent accretion from some aboriginal tribe.

The only other caste numbering more than 100,000 is that ^{Pans.} of the Pans (116,105). They seem to have belonged originally to the aboriginal tribes, and are consequently found in large numbers in the western thanas of the district, Salipur, Jajpur and Dharamsala, which are close to the Garhjat hills. The social status of the caste is very low; they eat pork and fowls, drink wine, and repudiate the Hindu restrictions upon food. Their original occupation is said to be weaving, but they now

mostly work as day-labourers, drummers, and cane-weavers, and many of them have taken to cultivation. Their professed religion is a sort of bastard Hinduism, which in Cuttack inclines to Vaishnavism, each group of Pans having their Pan Vaishnava, who officiates as their priest. The veneer of Hinduism, however, has only recently been laid on, and beneath it may be perceived plentiful traces of the primitive Animism common to all Dravidian tribes.

CHAPTER IV.

PUBLIC HEALTH.

CUTTACK cannot be considered a particularly healthy district. **VITAL STATISTICS.** Although the average birth-rate over the period 1912—1931 was 37.34 per mille, which is slightly above the provincial average of 37.10 per mille, the death-rate of 35.23 per mille considerably exceeded the provincial average of 30.5. In seven years out of the twenty the number of deaths exceeded the number of births. These years are grouped in two distinct periods, 1918—1921 and 1924—1926. The heavy mortality in the first period was due to the effects of the great epidemic of influenza, which swept over the whole of India in the latter part of 1918 and early part of 1919. In the former year the death-rate rose to 45.10 per mille, and in the latter to 55.10. As might be expected, the birth-rate in 1920, 31.60 per mille, was almost the lowest on record; and although the death-rate dropped to 39.40, it was not until 1922 that births again exceeded deaths. The death-rate from " fever ", which includes influenza, and all other diseases accompanied by fever which the village chaukidar cannot diagnose, rose from 14.90 per mille in 1917 to 24.80 in 1918, and 26.00 in 1919; and altogether over 107,000 deaths were recorded in this group of diseases during the two years.

The second wave of high mortality was due to more general causes. Malaria and cholera are both endemic in the district, and it only needs the appropriate combination of climatic conditions to make them epidemic. Defective and badly distributed rains in 1924 favoured the outbreak of both diseases; and excessive rain in 1925, followed by serious floods in 1926, adversely affected the health of the people, and retarded the adjustment of the natural balance.

According to the returns, 16.12 deaths per mille, or nearly half the entire death-rate of 35.23 per mille, are due to " fever ". This is a comprehensive term. The village chaukidar, the primary reporting agency, can recognize cholera, small-pox and dysentery, but all other diseases of which fever is a symptom are lumped together. The term therefore includes **PRINCIPAL DISEASES.** Fever.

malaria, kala-azar, typhoid, influenza and pneumonia. Malaria is extremely prevalent, but it is not considered to be the direct cause of many deaths, though the debilitated condition to which it reduces its victims doubtless renders them more liable to attacks by other diseases. The presence of what is known as relapsing fever was for a long time suspected, but definite evidence to prove it has been wanting. Kala-azar has increased in recent years but cannot be said to be common.

Cholera.

Cholera accounts for 2.4 deaths per mille, as compared with the provincial average of 1.8, and is always liable to be transformed into an epidemic by the *Snan Jatra* and *Rath Jatra* festivals at Puri, which occur at the time of the year (June and July) most favourable to the spread of the disease. The privations which many of the pilgrims have had to face on the journey, the over-crowding, lack of adequate sanitation, tainted food and water-supplies, all combine to produce an epidemic, which the returning pilgrims spread in all the districts through which they pass. Special and elaborate arrangements for sanitation, segregation and inoculation have done much in the last thirty years to lessen the severity of the outbreak, and its effect on the district of Cuttack has also been less marked since the advent of the Railway, which now transports rapidly thousands who would otherwise have passed slowly through the district on foot spreading contagion as they went.

The greatest hope for control of the disease appears to lie in the system of inoculation. The Director of Public Health in his annual report for 1928 writes : " It is a well-established fact that cholera frequently breaks out amongst the pilgrims at large *melas*, and in Puri many of the religious rites that pilgrims are expected to observe seem specially calculated to bring about an outbreak of the disease during the Car festival. An effort was made in 1927 to protect pilgrims by inoculation. Centres were opened at the Railway stations at Balasore, Cuttack and Puri; and in Puri, in addition to the centre at the Railway station, six centres under six medical officers were established in the town itself. The *Snan Jatra* precedes the *Rath Jatra* by about 15 days, and inoculations were carried out at both these festivals and during the period that intervened between the two. In 1928 a campaign organized on similar lines was carried out, and whereas in 1927 a total of 12,618 inoculations were done at

these three towns of Orissa during the two festivals, in 1928 a total of 25,176 pilgrims were inoculated. The results were satisfactory and it was noted that pilgrims who had been inoculated the previous year not only came forward to get done again, but endeavoured to persuade their friends to submit to the operation. This preventive measure will undoubtedly get more popular every year."

Experiments have also been made during the last two years with the invisible non-filterable micro-organism known as bacteriophage. This, when introduced into the water-supply, or directly into the human system, preys upon the cholera vibrio and destroys it in a very short time. Much, however, has yet to be learnt about it, and the experiment, though promising, is inconclusive.

Small-pox is almost an annual visitation, and compared Small-pox. with the rest of the province Cuttack has a bad record. The average death-rate per mille for the years 1918 to 1927 was .96 which is more than double the provincial average of .40. In 1926 there was a serious epidemic, and the death-rate rose to the very high figure of 3.10. In his annual Public Health Report for 1926 the Director of Public Health wrote: "The vaccination state of the people in Orissa is not satisfactory. Much has been done, and is being done, to improve matters in this respect, but the people are poor and ignorant, and are averse to having their children vaccinated, more especially when they have to pay for the operation."

Bad as the position is, however, it was very much worse thirty years ago, when the average death-rate from the disease was over 3 per mille. This high rate was due to the practice of deliberate inoculation with the disease that prevailed in the district, and has only with difficulty been stamped out in recent years. The following account of this practice based on a report written by Major J. T. Calvert, I.M.S., Civil Surgeon of Cuttack, appeared in the original Edition of this Gazetteer :—

"The profession of inoculator is hereditary among the The practice Mastan Brahmans, who also follow the calling of cultivators. of inoculation. They are found in scattered villages all over Orissa, and in this district there are several villages in the Salipur thana entirely occupied by them. As inoculators the community and the villages in which they live are well known to the

people generally, though the practice of inoculation is naturally most prevalent in the Salipur police circle. Their working season is usually a short one, extending from about the 1st November to the 1st March. Fees are paid according to the circumstances of the parents whose children are inoculated, and range from a minimum charge of 2 annas for a female and 4 annas for a male child to larger sums, in addition to which presents of cloth, rice, etc. are given. The income of an inoculator formerly is said to have varied from Rs. 100 to Rs. 300, but recently it has fallen and ranges from Rs. 25 to Rs. 200 per annum.

The material used is small-pox derived from a person recovering from an attack of variola discreta and removed on or about the 21st day of the disease; crusts of variola confluenta are not taken by skilful inoculators. After removal the crust is covered up with cotton wool and placed in a small hollow bamboo which is closed with a *sola* pith cork. When required for use—and this should be, if possible, within three or four days after removal—the cotton wool containing the crust is moistened with water and squeezed on to a snail-shell; and the turbid fluid thus obtained is used for the operation. The instrument employed is a small piece of iron, shaped like a miniature country nail-parer, with a sharp edge; with this the skin is notched until blood just appears in the scratch, and the watery fluid mentioned above is then applied.

Formerly male children were generally inoculated on the forearm, and female children on the upper arm; but the Pans, the hereditary inoculators of some of the Tributary States, select a spot on the forehead between the eye-brows as the seat of inoculation. Recently, however, owing to the prohibition of the practice, it has been found necessary to select some less conspicuous place, such as the back part of the upper arm or knee, or the back of the hand.

Although there is no restriction regarding the age at which the operation may be performed, it usually takes place between the ages of two and eight years, and in practice persons over 40 years of age are not subjected to it.

The operation is practically a religious ceremony. The day before it takes place a solemn offering is made to Sitala, the goddess of small-pox, of which the essentials are cocoanut, milk, treacle, curd, cheese, plantains, turmeric, rice, *duba*

grass, plum leaves and vermillion. This *puja* having been completed, the child is inoculated and incantations are made to Sitala until the scabs fall off. Four or five days after the operation the inoculator visits the child and takes his fees; and he comes again and offers *puja* to Sitala, from the 9th to the 16th day, during the height of the eruption. Formerly this *puja* was performed openly with cornets and drums but nowadays it takes place privately for fear of attracting attention.

After the operation the child is fed on cold rice and *feni* (a kind of sweetmeat), and has a bath daily until the eruption appears. The bath is then stopped, and rice, *dal* and fried plantains form the dietary. During the period of convalescence the patient is humoured, dealt gently with, and never scolded, even if fractious, as it is believed that the deity presiding over small-pox is in the child's system, and any castigation or abuse might offend the goddess and draw down her wrath upon the child, in the form of confluent small-pox and death. It is also believed that inoculators have the power of producing the exact number of eruptions which they promise before undertaking the operation; and they are credited with the power of allaying the intensity of the disease in a small-pox stricken patient. Their treatment consists in the administration of emetics and purgatives, by the action of which they believe the poison is washed away."

Dysentery and diarrhoea belong to the same group of intestinal diseases as cholera, the transmission of which is associated with the infection of the individual by contact, or by the contamination of the water-supply by excreta, or of food by flies. They tend to become epidemic under the same conditions as cholera, and it is not therefore surprising that they are unusually prevalent in Cuttack, the average mortality being 4.65 per mille as compared with the provincial average of 0.8. The principal source of infection is undoubtedly impure water-supplies, and outbreaks are most likely to occur either in the hot weather when water-supplies are shrinking, particularly if the monsoon is late in arriving, or in the late autumn, if the monsoon ceases early, when anxiety to save the winter rice crop leads to the utilization of all available water for irrigation.

Other diseases.

Sporadic cases of plague have from time to time occurred in the district, but the disease is practically unknown. Amongst other diseases not usually fatal the most prevalent are elephantiasis and hook-worm. It is probable that 25 persons in every thousand suffer from the former, generally in the legs. Exhaustive research into the treatment of the disease has been made during recent years by a special officer at Puri, and sufficient progress has been made to hold out hopes that the disease can be cured, or at least stayed, if treated in time.

Hook-worm.

Hook-worm is probably present in 80 per cent or more of the population. The patient is generally unaware of it, as there are no symptoms beyond lack of vitality and vigour and generally enfeebled health. The extraordinary prevalence of this disease possibly accounts to a large extent for the general reputation of the Oriya, in Orissa, for laziness and inefficiency. The disease itself is easily curable, in most cases in a few days, but the conditions that breed it can only be eradicated by improvement in the education, hygiene and economic condition of the people.

Town and country.

There is a noteworthy difference between the mortality figures for the rural and urban areas, due no doubt to better sanitation, greater facilities for medical attendance, and the superior education and standard of living of the townspeople. Whereas the death-rate (1922—1931) for the district excluding the towns is 34.15, the average of the three towns of Cuttack, Kendrapara and Jajpur together is 23.78. Cuttack is far the healthiest of the three, having a death-rate of 13.69 only. In Jajpur it is 23.22, and Kendrapara exceeds the district rate with 34.43. The principal variant in the towns is the mortality from fever, which is only 4.76 in Cuttack and 12.31 in Jajpur, whereas Kendrapara, with a rate of 19.87, exceeds the rural rate of 15.72. Fever, which is generally due to lack of sanitation, bad water-supply and exposure is generally a rural disease, whereas infectious diseases such as cholera and small-pox flourish best where the population is thickest; and in view of the high mortality from fever Kendrapara must be considered definitely unhealthy. From cholera also it has a higher mortality than either of the other towns, though it is comparatively free from small-pox.

In spite of the prevalence of small-pox, which often results in blindness, Cuttack has a comparatively small blind population, the proportion per 100,000 being 133 among males and 113 among females. This proportion is however considerably higher than in Puri, or Balasore. Orissa stands high among localities in which leprosy is prevalent, and Cuttack, with 184 per 100,000 males and 57 per 100,000 females, yields place only to Puri and Manbhum as far as this Province is concerned. Lepers naturally resort to Puri in the hope of alms from charitable pilgrims. There is a leper asylum at Cuttack, and of the 2,545 lepers enumerated in the district at the 1931 census 252 were found in the leper asylum.

Insanity is relatively prevalent being 44 per 100,000 amongst males, compared with the provincial average of 28, and 22 amongst females, as compared with the provincial average of 15. This is higher than in Balasore, though about the same as in Puri. The number of deaf-mutes is much below the provincial average, being 57 as against 77 amongst males, and 26 as against 49 per 100,000 amongst females.

Outside the municipalities, where reasonably effective conservancy arrangements are maintained, sanitary efforts have been almost negligible. The district board sinks wells and cleans tanks where this is most necessary, and maintains a health officer and a number of sanitary gangs under health inspectors, whose functions are in the main to deal with outbreaks of epidemic diseases. In 1931 this staff performed 90,852 inoculations against cholera; and disinfected 15,193 wells, 1,307 tanks and 2,281 infected houses. Lectures and leaflets on elementary sanitation and hygiene were also given to the villagers, and special attention was given to fairs and *melas*. There are four union boards, two in Jagatsinghpur, one in Banki and one on the outskirts of Kendrapara, which among other duties are supposed to look to the sanitation of their areas; and recently an experiment has been made with village sanitation committees at Rambagh and Chital in Jajpur thana, and at Matia in Patamundai.

All these activities, however, merely touch the fringe of the problem, the solution of which must depend upon raising the standard of education of the villager sufficiently to induce him to abandon age-long habits of filth and squalor. The

houses throughout the district are built of mud dug up from the vicinity; and the result is that in the neighbourhood of almost every hut or house there is a dirty pit, filled to overflowing with water in the rainy season, and the receptacle of every description of filth. The consequent pollution of the water-supply, and the effect on the general health of the villagers, can be better imagined than described.

**MEDICAL
INSTI-
TUTIONS.**

Until the 'seventies' of the last century there were only two institutions for affording charitable medical relief besides the Lunatic Asylum, viz. the Cuttack dispensary or *annachhatra* hospital, and the Jajpur dispensary. The Cuttack dispensary was an institution connected with, or rather forming a part of, a general scheme for giving charitable aid to pilgrims and other poor people, and for supporting a number of *pandas* or Hindu priests who keep up various temples and shrines in the neighbourhood of Cuttack. The *annachhatra* fund appears to have had its origin in assignments by the successive Hindu, Muhammadan and Maratha Governments for religious and charitable purposes; at the time of the first settlement of the district after its conquest, these charitable and religious assignments were continued as a charge on the revenue of the Province. Owing to the peculiar nature of this charity, less than half of the income was expended in the support of the dispensary proper, a fifth of the income was paid to the *pandas* or in pensions, and half that amount in feeding the halt, lame, blind, lepers, etc., who assembled twice daily and received substantial meals each time. The female ward was generally filled with starving pilgrims or diseased prostitutes from the town, and the general ward was likewise full of pilgrims, some of whom were half-famished, while others were brought in the last stages of diarrhoea, dysentery and other wasting diseases. Naturally such an institution failed to attract respectable patients, when nearly all the in-door patients were pilgrims, or starving people picked up on the roads and brought in by the police, and the people of Cuttack, of the ordinary class of hospital patients, would hardly ever enter the hospital. The state of affairs at the Jajpur dispensary was very much the same; the patients were principally mendicants or starving pilgrims, and other classes looked upon the place as polluted and would never remain there.

Apart from the Cuttack General Hospital, and certain hospitals for particular classes such as Canal and Railway

employees, medical relief is now provided at no less than 26 dispensaries. Of these, three, namely the Cuttack branch dispensary, and the dispensaries of Jajpur and Kendrapara are municipal institutions, and one is maintained by Government at Banki for the Banki Government estate. The district board maintains 19 dispensaries at various places in the interior, namely Dharmsala, Raisungra, Jagatsingpur, Patamundai, Raghunathpur, Sukinda, Manijanga, Balikuda, Asureswar, Kalapathar, Korai, Mangalpur, Tyandakura, Hari-pur Hat, Patkura, Niali, Aul, Marsagai and Binjharpur; and there are other private institutions at Barchana, Anantpur, Rajkanika and Rajnagar maintained by the zamindars of those places. Omitting these last, for which figures are not available, the dispensaries in 1930 maintained 75 beds and treated altogether 173,577 outdoor and 804 in-door patients. In addition the Cuttack General Hospital maintained 160 beds for men and 46 for women; and treated 14,868 out-patients and 2,448 in-patients.

The following table shows the principal diseases treated in all the institutions in the district in 1930 :—

Cholera	...	...	183
Dysentery	...	...	4,014
Enteric	...	...	78
Gonococcal infection	...	...	935
Syphilis	...	...	1,332
Kala-azar	...	...	84
Leprosy	...	...	232
Malaria	...	...	51,150
Plague	...	...	76
Influenza	...	...	207
Relapsing fever	...	...	15
Pneumococcal infection of the lung	...	...	445
Small-pox	...	...	5
Tuberculosis of the lung	...	...	201
Other tubercular diseases	...	...	114
Other infective diseases	...	...	592
Malignant growths	...	...	189
Opium poisoning	...	...	16
Beri-beri	...	...	1

The Cuttack General Hospital, which is the premier Cuttack medical institution in Orissa, was established in 1874. It General Hospital.

took the place of the old *annachhatra* dispensary mentioned above, and was principally supported from the proceeds of the *annachhatra* fund, a grant made by Government in lieu of the old endowment which it resumed. In 1904 the Lady Woodburn ward for women patients was added and also an out-door dispensary. The hospital was provincialized in 1925, and considerable improvements and additions have been made since then. It has now 150 beds for men, 52 for women and 4 in the Kanika Cottage, which is an annexe available to patients of either sex. The chief diseases treated are diarrhoea, dysentery, malarial fever, venereal diseases and diseases of the eye. The great majority of the operations are for the removal of elephantiasis of the scrotum or penis.

Orissa
Medical
School.

The Orissa Medical School was established in 1875 with the object of providing Orissa with a supply of qualified Indian doctors. Originally housed in the upper storey of the General Hospital, a separate building was provided for it in 1904, and since then it has steadily developed. A new administrative block and examination hall has recently been completed, and there are hostels for male and female students. The instruction is a four-year course, and some 40 licentiates and an equal number of compounders are passed out each year.

Child
Welfare
Centre.

The Bihar and Orissa Child Welfare Society maintains a centre in Cuttack which deals with some 600 maternity cases yearly.

Cuttack
Lepor
Asylum.

The Cuttack Lepor Asylum, covering an area of 30 acres on the bank of the Mahanadi, 5 miles east of Cuttack, was opened in 1919, and has accommodation for 240 patients. The buildings include a laboratory, dispensary, operating theatre, and a hospital with 20 beds, weaving shed, meeting-hall and the necessary quarters. The institution is managed by the Mission to Lepers working through the local Baptist Mission which provides an honorary Superintendent. The greater part of the funds is provided by Government and the Mission to Lepers, but contributions are also received from local bodies and certain Feudatory States. The basis of treatment is Hydnocarpus oil, and satisfactory results have been achieved. In 1930-31, 35 cases were discharged "Symptom free" and none have reported a recurrence of the disease.

Leprosy clinics have also been opened at the dispensaries of Patamundai, Manijanga and Jagatsingpur.

CHAPTER V.

AGRICULTURE.

AN account has been given in Chapter I of the three tracts **GENERAL** into which the district is naturally divided, viz. the littoral, **CONDITIONS.** forming the sea face of the Bay of Bengal, the submontane, under the western hills, and between them a wide zone of highly fertile land intersected by a network of great rivers. To the east is a low-lying tract, which is of great natural fertility, where it is protected from the action of salt water; but a great part is impregnated with salt and unfit for cultivation, while much of the rest is exposed to damage from storm-waves. This belt of country contains treeless expanses of rice-fields and grass-lands sloping down into a desolate jungly tract, full of swamps, saline creeks and impenetrable morasses, the haunt of wild hog and deer and of enormous crocodiles. To the west a large part of the surface consists of a series of low ranges, 10 to 15 miles in length, spreading out into infertile table-lands of ferruginous clay and laterite. It is a region of high sterile land and rocky hills, covered with bamboos and scrub jungle, and intersected by narrow though fertile valleys. Between these two tracts lie the wide alluvial plains forming the delta of the Mahanadi, Brahmani and Baitarni rivers, where an extensive system of irrigation protects the crops from failure in seasons of drought, and enables land to be cultivated that would otherwise remain barren. They present a gradual and steady slope from the high lands of the west to the sea, and a composition varying according to the relative proportion of the sand and silt of which they are formed. The surface is generally flat and presents the appearance of a dead level of rice-fields, but it is broken by the hills of Alti and Matkatnagar in the centre, and is cut up by numerous river channels. In the west, where the mountains slope down to the plains, the lines of drainage are sufficiently marked by the great rivers, but in the delta proper the low levels lie not along the river courses, but in the valleys midway between them. The surface water gathers in many places in these intervening valleys into low marshes

or temporary lakes, which are used during the dry season for the cultivation of the *dalua* or spring rice. In the central portion of this intermediate belt a large variety of crops are raised on the lands which are periodically enriched by river silt; but along the western border and near the coast, winter rice is practically the only crop grown, as in the former tract the land is too high to receive deposits of silt, and in the latter tract the silt is deprived of most of its fertilizing power by the saline deposits of sea water.

Rainfall.

Cuttack is primarily a land of abundant rainfall. Since 1860 the average registered fall for the year has been nearly 60 inches, it has occasionally been as great as 80 or 90 inches and there have been only nine occasions on which it was less than 50 inches. On the other hand, the rainfall is precarious, and an untimely or unequal distribution is liable to cause the partial or complete destruction of the crops, even if the actual fall does not fall short of the quantity required. A heavy shower in February or March is necessary to enable the land to be ploughed, but the most critical months are May, September and October. If the May showers, which are the precursors of the monsoon rains, do not fall, sowing may be prejudicially delayed; but deficiency in the rainfall in September and October is even more dangerous, as it affects the maturing of the staple rice crop. The most terrible famine the district has ever known was caused by the failure of the September and October rains in 1865; in 1896, and again in 1907, with a rainfall very little below the normal, serious loss was caused by the cessation of the rains early in September; and, on the other hand, the crops of 1876 and 1877 were saved by the rains in these months, in spite of the very scanty fall of 41.28 and 41.13 inches. Maddox in his Settlement Report has analyzed the figures over a considerable period of years, and came to the conclusion that a well-distributed rainfall of 40 inches is sufficient to secure the crop, provided that not less than 4 inches fall in October; but in order to obtain a bumper crop at least 50 inches are required, of which 8 inches must fall in September and 6 inches in October. On the basis of these figures he concluded that generally speaking the cultivators have to face the prospect of having once in every three or four years a rainfall less than the minimum compatible with the ripening of the crop, and of suffering a loss of one-fourth to a half of the rice in

the unirrigated lands. A more detailed examination of the records, however, from 1803 down to 1928, has shown that in this total period of 126 years there were 92 years of good crops, 46 in the period 1803—1866 and 46 in the period 1867—1928, or almost exactly three good years out of every four. In this calculation, however, the effects of both drought and flood have been included, so it seems clear that Maddox has rather overstated his case, and that a fall of less than 4 inches in October is not necessarily disastrous provided there is a fair amount of rain in the latter part of September or the first week of November. Flooding is another evil to which the district is particularly liable. It is only, however, when they are of an extraordinary height and of long duration, or when they occur so late as to render resowing impossible, that very serious and widespread damage is done by such floods. Provided that they are not too high or of long continuance, and that they come early in the season, they are productive of almost as much good as harm, as the fertilizing silt they leave behind renews the productive powers of the soil and assures excellent harvests.

Owing to the ample supply of rainfall in ordinary years **Irrigation.** irrigation is far less essential than in less favoured parts of the province, and, except for the canals, it is little used. An account of the value of the canal system as affording protection against a failure or partial failure of the rains in years of drought has been given in Chapter VI; and it will suffice here to say that the area irrigated from this source is 207,500 acres and that the canal embankments protect about 540,000 acres. This area is practically all under rice, and water is taken from April to December, the demand for it being greatest in May and June, when it is required for ploughing the land, in July and August for loosening the soil at the roots of the young plants, and in October for the final ripening of the crop. Well water is used only for watering garden crops and betel plantations; and irrigation from streams and tanks is generally confined to the more valuable crops such as sugarcane, tobacco, and cotton; in most parts of the district it is only resorted to for paddy in October and November.

In the low-lying tracts near the sea water is taken from **Water** the small streams and creeks by means of the *tenda* or *lifts*.

bamboo water-lift. This contrivance for raising water consists of two upright posts, with a cross bar, which serves as a fulcrum on which a bamboo pole works; the latter is weighted at one end by a stone or mass of mud, and at the other a thin bamboo is fastened, with an earthen pot or bucket attached. When water is required the cultivator pulls down the bamboo pole till the bucket is immersed; as soon as the tension is relaxed, the weight attached to the lever raises the bucket of itself, and the water is then emptied into the *nodha* or pipe, which is generally the hollowed trunk of a palm-tree, and is directed into the fields. When the field is any considerable height above the water, a platform is built on four stout bamboos on which a man stands to work the lever.

When the water has only to be raised a few feet, it may be scooped up in a *sena*, a sort of basket made of split bamboo which two men use. Holding the ropes attached to either side, they swing it backwards, and bringing it down sharply into the water carry the forward motion of the swing through until the *sena*, now full of water, is raised to the level of the water-channel, when the contents are poured out. Another way of lifting water a short distance is with a scoop, called the *janta*, which is made of a single piece of wood about 6 feet long, hollowed out and shaped like one-half of a canoe, the broad open end of which rests on the head of the water-channel. The pointed closed end dips into the water and when this is raised the water pours naturally into the channel. It may be worked by one man either directly or with the help of a bamboo crane and counterpoise, as is done with the *tenda*, but it cannot lift more than a couple of feet. It is not uncommon for two of these methods to be combined, the water being lifted by the *tenda* into a reservoir, and from that into the water-channel by a *sena* or *janta*.

Soils*.

The arable land in the plains consists of alluvium in which sand and clay are intermixed in varying proportions; but the cultivators recognize a large number of different classes of soil, the names of which vary according to their situation, elevation and composition. In an ordinary village

* This account is based on that given in the Report of the Agriculture of the district of Cuttack by N. N. Banerjee, M.R.A.C., to which I am also indebted for other information contained in this Chapter.

the lands fall primarily under three main divisions according to their situation, viz. : (1) The low lands retaining rain water and hence called *jala* or wet lands, on which winter rice is grown. These lands predominate in the district and comprise about 70 per cent of the whole cultivated area. (2) The high lands round the village homesteads, which, being enriched by manure and household refuse, have a blackish colour and are therefore called *kala*; they are devoted to vegetables, cotton, jute and other valuable crops. The homestead land is also known by the generic name of *gharbari*, and the land lying between this and the fields is called *gantali*. (3) The river-side lands (*pala*), which, being periodically fertilized by deposits of silt, are suitable for growing tobacco, cotton, mustard and other *rabi* crops.

Arable lands are also classified according to their elevation, the low-lying land producing rice being called *khal* and the high land *dhipa*; those situated on a level between the two are known as *madhiana*. The low lands are further divided according to the difference in level into *jora*, *dera* and *gahira*. *Jora* is the name given to the hollows which collect the drainage of the surrounding high lands, and, being always waterlogged, are used only in the dry season or for very coarse varieties of rice; the *dera* lands are those situated at a higher level on the sides of the hollows; and the *gahira* lands are those lying still further up. In hilly country the hollows lying between the upland jungle-covered ridges are known as *goroda*. High lands which are not enriched by silt and cannot retain rain water are contemptuously referred to as waste land (*thenga*, *thengi* or *danga*). The soils are again divided into four great classes according to their composition, viz. (1) *Matal* or clay lands, (2) *Dorasa* or loamy soils, (3) *Balia* or sandy lands, and (4) *Patu* or alluvial soil. The raiyats, however, recognize a large number of minor distinctions and give different names to the soils according to the extent to which clay, sand, loam and silt predominate in their formation. (1) *Matal* is the name given to all kinds of stiff clayey soils. Rice and sugarcane are the principal crops grown on them, but besides these wheat, *birhi* and *kulthi* are also cultivated. (2) *Chikita* is a strong sticky clay, which is almost too stiff to be used for successful cultivation, and grows for the most part coarse varieties of the *sarad* or winter rice. The outturn on such lands is said to be generally very poor. (3) *Chauria*

is also a hard clay, which is very liable to cake on being exposed to the sun when ploughed. It generally cracks into hard blocks on getting dry, and is altogether an inferior soil. (4) *Dorasa* is a mixture of sand and clay in nearly equal parts. It is used for *biali* or autumn rice and for all *rabi* crops. It is easily worked and is retentive of moisture. (5) *Telbalia* is the name given to a loam which contains a larger admixture of sand than the *dorasa* lands. It is looser in texture, and being poorer, requires more manuring than the latter. (6) *Baliāmatal* is a loam with a large admixture of earth; in other words, a rich sandy loam. (7) *Rangamati* is a red ferruginous sandy loam occurring near laterite rocks. Like *telbalia*, it requires a great deal of manuring before it can produce a good crop. (8) *Thenga jami* is an elevated sandy loam with very little moisture, which as a rule is allowed to lie waste, though sometimes ploughed up for growing *biali* paddy, *mandia*, and *kulthi*. The crops on such lands are necessarily very poor. (9) *Balia* is the name given to very loose sandy soils which grow the poorer kinds of *rabi* crops. (10) *Patu* is an alluvial soil, formed from silt deposited by floods. It is used for tobacco, jute, coriander and mustard, and is taken advantage of to grow all kinds of miscellaneous crops. (11) *Pankua* is a black mud unmixed with sand, such as is found at the bottom of ponds and tanks. (12) *Rektimatal* is a stiff rich soil. (13) *Pansia* is a loose though comparatively fertile soil. (14) *Gengutia*, as the name would signify, is applied to a clay containing an admixture of *genguti* or lime, which is met with near those river-beds which contain nodulous limestone. An admixture of clay and limestone dust is in the same places known as *khali*. (15) *Nunajami* is land which is more or less of a saline nature. It is generally of very little use; but a few varieties of *laghu sarad* rice are grown on it when it does not contain an excess of salt.

**PRINCIPAL
CROPS.**

Rice.

The staple crop is rice, which is grown on 1,042,600 acres* or 77 per cent of the cultivated area. The varieties grown are very numerous, but they all fall under one of the three heads according to the season at which they are sown and reaped, viz. *biali*, or early rice, sown in May or June and reaped in August and September; (2) *sarad*, or winter rice, sown in June and July and harvested between October and

* The figures showing the areas under various crops are the averages for the 5 years ending 1930-31.

January; and (3) *dalua*, or spring rice, which is sown after the floods have subsided and is harvested in March and April.

The most important of all these crops is the *sarad* or Winter rice. winter rice. It is divided according to the amount of water it requires into *guru* or heavy and *laghu* or light varieties, the *laghu* paddy being grown on moderately low lands which are wet or covered with six inches to a foot of water from June to October, while the *guru* paddy is grown at a lower level. The rice-fields vary in size ranging from small plots covering $\frac{1}{25}$ th of an acre to large fields occupying an acre of ground. They are enclosed on all four sides by small ridges (*hira*) about a foot in height and breadth, in order that the rain water collected in these artificial shallows may keep the plants wet; otherwise, the land losing its moisture, the plants would quickly wither and the crop be lost.

After the winter crop has been harvested in December, Broadcast the cultivator is on the look-out for the first shower of rain to cultivation. plough his land. The time of ploughing necessarily depends on the rainfall, but if the cultivator is lucky, this occurs in February. As soon as the first shower falls, the country is covered with miserable-looking half-starved cattle dragging primitive ploughs, which as a rule never penetrate a foot below the surface of the soil. The land is ploughed as often as the weather and the resources of the cultivator permit, but as a rule four or five ploughings are considered sufficient. The soil after being turned up is exposed to the action of the sun and wind, and those lands which lie beyond the reach of the fertilizing river silt are manured. The peasant then waits for the showers which usher in the monsoon, and starts sowing as soon as they appear in May or June. The seed germinates in three days, and consequently the earlier the seed can be sown and the stronger the young plants are when the rains set in, the better is the chance of a good crop. During the latter half of June and the first half of July the growth of the rice is helped by the monsoon rains, and the cultivators have little to do but watch the young plants growing up, mend the small ridges round the fields, and do similar odd jobs. During the rest of July and August when the plants have attained a height of 9 to 12 inches, there is the important operation called *beusan* (literally changing of place) to be performed. This consists of driving the plough through the

young rice in order to thin the crop and aerate the soil; wherever this results in too severe a thinning, the gaps are filled up by transplantation from thicker parts of the field. The ridges enclosing the fields are then finally strengthened, the grass cleared away from them, and the weeds removed. For these operations an ample supply of water is necessary, and if this is available and there is sufficient rainfall in September and October, a good harvest is secured in November and December.

From the preceding account it will be clear that the times of sowing and reploughing are two important periods when the *sarad* crop requires water, but by far the most critical period comes in the middle of October, when its fate depends entirely on there being enough water to mature it and to fill out the ear. At the first period no artificial irrigation is possible, and the people depend on rain water. At the second and third periods lands commanded by the canals, or about one-fourth of the cultivated area, can always get a plentiful supply of water, and under normal conditions the other lands also get sufficient rain water; but in years of deficient or unevenly distributed rainfall the people are obliged to irrigate the crop from every available natural or artificial reservoir. Fortunately the people have now learnt to appreciate the value of canal water, but for many years they refused to realize that the loss of their crops from drought more than counterbalanced the saving of the water-rate. If the rain held off, the raiyats grew daily more and more anxious; and though they began to discuss ways and means and the advisability of taking a lease of canal water, they took no steps in that direction; and it was not till the crop was irretrievably damaged to the extent of a fourth or a half that they took action. Then a panic would ensue, the whole country coming to the canal officer to demand water at a moment's notice over a vast area of parched and thirsty land, and, we are told, "ready to sign away their very lives in the urgency of the moment".

Transplan-
tation.

Nearly all the *sarad* rice is broadcast, transplantation being an unpopular system of cultivation, as it involves more labour, and the transplanted seedlings are very delicate for the first month and liable to injury by flood and still more by drought; it is estimated that only 4 per cent of the cultivated area grows transplanted rice. It is, however, admitted that, when successful, transplantation gives a larger yield; and it

is resorted to for fields, especially for those under irrigation, which grow a *sarad* crop after *biali*, to get rid of the wild paddy called *balunga*, to avoid the risk of early floods, and to replace the loss of the broadcast crop, if it is destroyed before the end of July. The seeds are sown either wet or dry in a nursery, which is generally a field near the village well manured and fenced in to keep off cattle and other animals. The land is carefully watered, and when the seedlings are a month old they are transplanted into the rice-field. The latter is prepared by ploughing and manuring in the same way as for broadcast rice, by puddling before the young plants are planted. The seedlings are arranged in bunches of three or four plants with a small space between each bunch; the roots are carefully imbedded to the depth of a couple of inches; they are then left and require no further attention beyond a good weeding and a copious supply of water. The earlier the transplantation is done, the better the results, and the proper time is considered to be from the middle of June to the middle of July.

The *biali* or early rice, which is always sown broadcast, *Biali rice*, ranks next to the *sarad* rice in importance. There are two main classes of *biali*, viz. the early variety, called *sathika* from the fact that it comes to maturity 60 days from the date of sowing, and the *bara dhan*, ripening about a month later, which supplies the people with a food grain only second in importance to the low-land paddy. Both varieties are grown on the higher lands of the villages, and for preference in a light loamy soil; they are sown and reaped in the rainy season. The whole crop is more precarious than the winter rice, being injuriously affected by drought in June and July, and being also liable to destruction by heavy floods early in the season. A failure of this crop does not, however, affect the people very seriously, as loss can generally be recouped by a good harvest of winter rice. If the *biali* is damaged by a deficiency of rain or by inundation, and there is no time for resowing, the lower lands at least can be sown with *sarad*, which with seasonable rainfall gives a good harvest, and so makes up for the loss occasioned by the failure of the early rice. On the other hand, if the rain is well distributed in the early part of the season but fails at its close, a bumper crop of *biali* will in part at least compensate for the *sarad* crop being spoilt. *Biali* rice is followed on high lands by pulses, generally *kulthi* or *birhi*, and on alluvial or homestead lands by mustard

and linseed; in rich soil under irrigation, or in favourable seasons, *laghu* paddy is transplanted to the lands from which the *biali* has been cut.

Dalua rice. *Dalua* is a coarse variety of rice, which is grown in the Kharsua and Brahmani estuaries on low swampy grounds and on lands too heavily waterlogged to yield *sarad*. Clay lands subject to tidal inundation are commonly chosen for the purpose, as irrigation is éasy and the crop is not affected by saline matter. It is sown in winter and reaped in the spring, and therefore requires constant irrigation. Canal water is utilized for the purpose in the area commanded by the distributaries, but elsewhere it requires no artificial irrigation, as being planted along marshes and tidal waters a natural supply is generally available. The crop may be either transplanted or broadcast, but the former method is the more common. A nursery is selected in the corner of a field or tank in which the seedlings remain until they are about a foot high; they are then imbedded in the rice-field which has been ploughed till it is a pulpy mass, and this is kept covered with water till the plant flowers. It ripens in March or April, and the crop is then cut. The area covered by it is not large, and it is only in the low-lying lands to the north of the district that it is a staple crop.

Outturn of rice. From the experiments conducted at various times it appears that the outturn of clean rice per acre is $13\frac{1}{2}$ maunds for irrigated and 12 maunds for unirrigated lands. The estimates of the Public Works Department show a much greater difference between the yield of irrigated and unirrigated lands, but their experiments are conducted in an area where all the best lands are irrigated and where the exclusion of river silt and systematic drainage have made a supply of water absolutely necessary. Outside this area the heaviest crops are raised on lands rich in river silt; and in ordinary years the average outturn of these lands is not very much less than in the irrigated country.

Other cereals and pulses. After rice the most important cereal is *mandia* (*Eleusine Coracana*) covering 19,500 acres, mostly in the central portion of the district. It is a cereal with a small reddish grain, which is grown on high, light and inferior soils on which *biali* rice would hardly succeed. Sometimes it is sown broadcast in May, but more often it is first sown in seed-beds and then transplanted in June. The crop, which requires good rain

in June and July, ripens in August and September, and yields about 6 to 8 maunds of seed to the acre. This is ground into flour and eaten with cakes and rice by the lower classes; it is said to have the merit of producing such a feeling of satiety that after a full meal a man is not inclined to eat again for 24 hours.

Wheat is grown to a small extent on upland fields after rice and generally on loamy or silt-covered soil; it occupies only 1,300 acres. It is sown broadcast in October or November and is reaped in April; as a rule it is left to grow up in the meantime as best it can. Barley is grown on light sandy lands, especially in areas exposed to inundation, and occupies the land from November to March. The area under this crop is insignificant, being only 100 acres. Other food-grains, including pulses, are produced on 123,100 acres; the only other cereal which need be mentioned is *china* (*Panicum miliaceum*), which is more largely grown than wheat and barley, but it is of little importance; and after rice it is on the pulses sown in the autumn and harvested from January to April that the people depend. The commonest and least valued of these is the pulse called *kulthi* (*Dolichos biflorus*), grown on poor lands after *mandia* and early rice, or on yet higher sandy lands which produce no other crop. The seed, which is like a dark flat pointed bean, makes an excellent food for cattle and horses; it is also boiled and eaten with rice by the poorer classes, and is even taken alone in times of scarcity. *Birhi* (*Phaseolus radiatus*) is a more valuable crop grown after *biali* rice where the land is rich enough, and is found chiefly in inundated areas. It yields a little round pea, which is given to cattle and also eaten as a pulse in the form of *dal*. *Muga* (*Phaseolus Mungo*) is the pulse most largely consumed by the better classes. Though not so general in its distribution as *birhi* or *kulthi*, it is the commonest *rabi* crop grown on *sarad* lands; it is found chiefly in the flooded tracts in the south of the district. The only other pulse calling for separate mention is *harar* (*Cajanus indicus*), of which there are two varieties—the *deo* or *nali harar* grown on homestead lands and the *chaita harar* raised on river-side land after *biali* paddy. The former variety is found in the west and centre of the district, and the latter is most largely grown on the border-land between Cuttack and Puri, and in the Brahmani basin, where it was the only crop which saved the people from starvation in many villages during the scarcity of 1896-97.

Oil-seeds. Of all the oil-seeds mustard and rape cover the largest area being grown on 9,900 acres. Mustard is grown on rich loamy soil after a crop of rice and is commonest in the south of the district. It is one of the most valued of the *rabi* crops and its oil is used for anointing and cooking purposes. *Til* or gingelly is raised on 1,100 acres, castor on 4,300 acres and linseed on 4,000 acres and the total area under all other oil-seed crops is 4,400 acres; the most important of these is the castor-oil plant, which is usually found on homestead lands, or in sandy fields along the beds of rivers, it being a peculiarity of the plant that it will grow in a depth of sand which would kill other crops.

Fibres. The two chief fibre crops are cotton and jute. Cotton, which occupies 1,200 acres, is generally grown on homestead lands which can be watered from tanks and canals, or on rich alluvial soil by the river-side. The cultivation of jute is mainly confined to the irrigated area in central Cuttack and Jajpur, but there is a certain amount in Kendrapara and it is gradually becoming a popular crop in Kujang. The area devoted to it is 16,900 acres. Like cotton it is grown on homestead or river-side land where an extra rent has generally to be paid for the privilege of cultivating it.

Tobacco. The tobacco plant, commonly called the *dhuanpatra* or smoke leaf, is one of the most valuable crops grown in the district, though the total area (8,700 acres) given up to it is small. It requires a rich loamy soil and a plentiful supply of water, and is only raised on rich silt-covered lands, on the banks of rivers, and in the depressions of the big flooded *pats* or drainage lines. The finest leaves are obtained on a sandy sub-soil with a thin covering of pure silt. The profits of tobacco cultivation are very large, and it is estimated that one acre will bring in a net profit of Rs. 75. It is not possible, however, for one man to cultivate more than a quarter of an acre, owing to the unremitting toil it requires, and people having larger areas fit for tobacco sublet them to their neighbours.

MISCELLANEOUS CROPS. Sugarcane, which covers 3,300 acres, requires a loamy soil and is grown generally on lands near the village and within easy reach of canal irrigation, or on the edges of natural water-courses, where the land is out of the range of canal water. It is a crop requiring incessant attention and involving a large expenditure of time, labour and money. The field has to

be ploughed some thirty times and richly manured before the cuttings are planted in January or February. Then constant irrigation is necessary, and the soil has to be loosened and oil-cake and mustard oil applied to the roots. These processes are repeated at intervals, the land being irrigated so as to keep it continually moist; and after the fourth application of oil-cake in May or June, the soil is loosened by the plough and the land weeded. Finally, in December the canes are cut down and the juice is extracted. The crushing is generally done by means of a country-made mill with three iron-rollers worked by bullock power, which has now completely ousted the primitive wooden mill; and it is probable that the introduction of power mills will soon become commercially possible, particularly in the Banki areas where there are approximately 2,000 acres under the crop.

The cultivation of the climbing vine called *pan* (*Piper Betel*, *betel*) the leaves of which are used to wrap up the *supari*, or areca-nut chewed by Indians of all ranks and classes, is not extensive, but its history is of some interest. It was introduced by some men of the Barui caste who came from Bengal and settled down in Cuttack. It is still grown for the most part by men of this caste, but it is no longer confined to them, as the profits of the crop have attracted other castes, and now Khandaits, and indeed even Brahmans cultivate it. The finest *pan* is grown at Barkud in the Kujang estate, where the immigrant Baruis first settled; and the greater portion of the district, especially the markets in the Kendrapara subdivision, is supplied with betel leaf from their plantations. There are also valuable gardens in Kodinda close to Cuttack and in the Jajpur subdivision, as well as in other parts of the district, but they are not so well known as the plantations of Barkud, which are jealously guarded from intruders, as the delicate plants, according to the growers, cannot bear any noise or disturbance. Under the sheds the leaves may be plucked and smelt, but not eaten, and women are not even allowed to bathe in the tanks and ponds from which the creepers are irrigated. The betel requires the most careful cultivation, but the crop is extremely valuable, and the large profits amply repay the labour and expense which it entails; it is estimated that during the 18 years which may be taken as the average life of a garden—at the end of that time it grows to an unmanageable height and has to be abandoned—the cultivator obtains a net

annual income of Rs. 131-10-0 for one *gunt* or .08 acre of land.

**Vegetables
and fruits.**

The most important of the garden crops is the *brinjal* or *baigun* (*Solanum melongena*) and its cultivation is very general. The *saru* or *caladium* (*Colocasia antiquorum*) produces a tuber which is very largely eaten by the people. Onions are common, and cucumbers of many kinds are grown in homestead lands and may be seen climbing over the roofs of the houses in nearly every village. Pumpkins are also very generally grown; nearly every cultivator has a plant in his homestead, and they are also raised on a larger scale on sandy river-side lands. The cultivation of potatoes is becoming increasingly popular, particularly in the neighbourhood of Cuttack, and improved seeds have been introduced recently from Patna. The most popular fruit is the plantain, which is grown in nearly every part of the district; it is eaten as a fruit and also with curries, as, like the *brinjal*, it forms the basis of most of the vegetable curries which please the palate of the Oriya. Mangoes grow freely, and form a very valuable addition to the food of the people during the hot weather, though their quality is decidedly inferior to the Malda and Bombay varieties. Pine-apples are grown in many villages, but are not plentiful enough to form a very valuable article of food. Among other fruits are the *bel*, jack, tamarind, Indian plum, custard-apple, and papaya. Spices, turmeric, chillies, coriander and ginger are used largely in cooking, but the area they cover (200 acres) is too small to meet the demand, and there is consequently a considerable import, especially of the more valuable kinds. There are altogether 94,200 acres under garden crops and orchards.

**EXTENSION
OF CULTI-
VATION.**

In the beginning of the 19th century the district had been reduced to a terrible state of desolation by the grinding tyranny of the Marathas. The hereditary heads of the people had fled to the Garhjats where the independent tributary chiefs gave them protection in their hilly and jungly retreats; no landholders could at first be found to engage for the lands; the raiyats had found from bitter experience that they could get land on more favourable terms in the hills and had better prospects of enjoying the fruits of it; and the population was consequently insufficient to till the fields. A traveller who

visited Cuttack in 1806 found himself in danger of wild beasts from the moment he entered the Province. Between Balasore and Cuttack, in a country now thickly populated and closely cultivated, he passed through a jungle abounding in tigers and required a guard of sepoy for the journey. Since that time cultivation has extended steadily under a settled government, though it was at first impeded by frequent droughts and by the injudicious settlements made in the early years of British administration; and now there is little land left for reclamation in the central portion of the district, where the pressure on the soil has almost reached its limit. The statistics available for the temporarily-settled estates afford a valuable index of the development of cultivation since the great settlement of 1837 was concluded. The cultivated area in these estates was then 697,000 acres, and the next 60 years witnessed an increase of 32 per cent, the area shown as under cultivation at the 1897 settlement being 920,000 acres. The increase must have been still greater in the permanently-settled estates, which lie on the sea-board and the hilly border region to the west; it has been most rapid in the north-east of Cuttack, but it has been general throughout the district and has steadily gone on with the growth of population, though it has occasionally been retarded by calamities such as the cyclones of 1885 and 1891. Many villages were deserted after the first disaster; the breaches it caused in the natural sea embankment of dunes or sand-hills were made worse by the cyclone of 1891; and areas which used to be cultivated were consequently swept by the salt water at high tides or when the tide was backed by a stiff breeze. The canal system does not appear to have been a special cause in the extension of cultivation; the increase has been no greater in the protected and irrigated areas than elsewhere; and the enquiries made on the subject have failed to elicit any evidence of a substantial extension of cultivation to lands which but for the canal water were not likely to have been reclaimed. At the present day the normal area under cultivation in the whole district is 1,344,000 acres, of which 94,100 acres are twice-cropped. Altogether 581,802 acres are not available for cultivation, but there are still 177,930 acres of culturable waste; much of this lies in the south-west of the district where the soil is very poor, or consists of scrub jungle at the foot of the hills; and it is doubtful if it will be brought under the plough for many years to come.

Improved
methods of
cultivation.

The Oriya is a very conservative cultivator and has an apathetic indifference to agricultural improvements. Various experiments have been made from time to time in the Government and Wards estates with new crops and modern implements, but these experiments have had little effect on cultivation generally. Various new crops have been tried such as potatoes, ground-nut, Cambodia cotton, Pusa wheat, long-stemmed rice, sugarcane, etc. Efforts have also been made to introduce improved implements like mould-board ploughs and the three-roller iron mill for crushing cane. The people are still wedded to the heavy old-fashioned Cuttack ploughs with two sides shaped like mould-boards which give them the appearance of ridging ploughs, and although the co-operative societies have now taken a hand in popularizing improved machinery and methods, progress is still painfully slow. Experimental farms have been established by the Agricultural Department at Cuttack and Kujang to investigate the problems of the central and maritime tracts respectively, and recently a small farm has been started near Aul to discover suitable crops for the heavily flooded tracts within the now abandoned ring-bund. At these farms much has been done for the improvement of local agriculture. Special varieties of paddy known as Cuttack nos. I, II and III, which are suited to local conditions, have been evolved and introduced to the raiyats, and in 1930-31 the area under these varieties was 2,200 acres. Varieties of Coimbatore Sugarcane nos. Co. 213 and Co. 205 have been introduced, and the former, which is suitable to the high lands, has practically ousted all the older varieties, whilst the latter, which can stand a great deal of water, has enabled cane-growing to be introduced in the flooded tracts round Kujang where it was previously impossible.

Manures.

The general conservatism is noticeable in the use of manure, as though the Oriya is to a certain extent alive to its advantages, he will not use it unless his ancestors have done so, and applies it less freely than the cultivators in other districts. Cow-dung is the most important manure, but its value is much diminished by the negligent manner in which it is stored, and the feeding of cattle is so poor that it is not rich in manurial constituents. Besides this, a great deal is lost by its conversion into fuel cakes, as, except in a few favoured localities, fire-wood is scarce and its high price renders its use prohibitive for the raiyats. For the most part,

therefore, cow-dung only finds its way to the soil in the form of ashes; and the only other manure in common use consists of household refuse. These manures are spread on the rice lands at the time of the first ploughing and are also applied to sugarcane, betel and vegetables. Oil-cake is also occasionally used as a top-dressing for these valuable crops. A strong prejudice exists against the use of night-soil and bone-meal. The feeling against the use of bone-meal is particularly intense. In selecting a site for a building the greatest care is taken to remove all bones that the land may contain, as they are supposed to bring about ill-fortune and to cause the inmates of the house to die without heirs. The more superstitious even go through certain ablutions and ceremonies before re-entering their houses, if they happen to stumble across a bone in their fields. Green-manuring with *Dhaincha* (*Sesbania aculeata*) has been proved by experiment at the agricultural farms to be very profitable for winter paddy, but has not become generally popular. The use of chemical manures is spreading under the influence of propaganda by the co-operative societies and the Agricultural Department, and in 1930-31 the Banki Co-operative Union alone sold nearly 500 maunds of ammonium sulphate, which is the most suitable for sugarcane, to its members, and a local dealer sold 800 maunds. Ammonium phosphate, the most suitable manure for paddy, has not made corresponding progress, because the margin of profit on the paddy crop is too small to permit expensive manuring.

The scientific rotation of crops is not adopted as a ^{Rotation.} principle of cultivation, but as a matter of practice rotation is observed in the case of the more exhausting crops. Sugarcane is never grown on the same land year after year, and when cultivated on *sarad* rice lands, it is alternated with paddy or follows a fallow, and is only grown on the same land once in four years. The lighter soils which bear early rice usually yield two harvests. When the crop has been harvested, the land is prepared for the usual *rabi* crops of pulse, wheat, barley, etc. and it is a common practice to grow *birhi* after the *biali* crop and then to use the land for sugarcane. The mixture of pulses and cereals serves the purpose of rotation, as the pulses belong to the leguminous family and enrich the soil with nitrogen. Experiment at the agricultural farms has shown that the rotation of jute followed by paddy followed

by *mung* (*Phaseolus Mungo*) is very profitable in the canal-irrigated areas, and the system is rapidly becoming popular particularly in Kujang.

CATTLE.

The cattle are similar to those found in the southern districts of Bengal, but owing to deficiency of pasture, the stock is generally poor. Some improvement has, however, been effected in the towns and a few places in the rural areas by crossing the local breeds with bulls imported from up-country. Pasture grounds abound on the sea-board and along the foot of the hills. During the hot weather large herds of cattle are grazed in the low-lying lands of Kujang, Kanika and other estates on the coast, and are driven up to the jungly uplands on the west in the rains. Elsewhere the ground retains little moisture during the hot weather, and the grass being parched up by the burning sun, fodder is scarce. Cultivation has encroached on the grazing lands for many years past, though much has been done in the course of the later settlements to reserve lands for pasturage; and the cattle have to be content with the dry stubble of the fields and such scanty herbage as the road-sides, river banks, tank-banks and the boundary ridges of the fields afford. A cheap and abundant supply of *birhi* and *kulthi* is always available, but though these pulses make an excellent food for cattle, very few can afford to give them; while even the straw which might eke out the scanty supply of grass is largely used for thatching purposes. In the dry months therefore the cattle have only what they can pick up in the fields, though they are partly stall-fed on chopped rice straw while at work; they are generally underfed and miserably housed, and no attempt is made to improve the breed.

The sheep bred in the district are small in size with a short rough wool. Goats abound but are also small, though the breed imported from the south are somewhat larger. Pigs of the omnivorous kind found everywhere in the province are bred by Ghusurias. The only horses are the usual indigenous ponies; they are few in number, undersized and incapable of much hard work.

Having in view the poor quality of the cattle it is not surprising that diseases are particularly rife amongst them. The two most prevalent are rinderpest and hæmorrhagic septicæmia. In the two years 1929-30 and 1930-31 the

former was responsible for the death of 12,012 cattle or 21 per cent of the provincial total; whilst the deaths from the latter averaged 345 a year. In 1930-31 there were five touring veterinary assistants in the district who visited 1,441 villages and treated 3,936 cases of disease. There is also a veterinary hospital at Cuttack in charge of a veterinary assistant, at which 1,335 patients including 50 in-patients were treated during 1930-31.

CHAPTER VI.

EMBANKMENTS AND CANALS.

NECESSITY
OF PRO-
TECTIVE
WORKS.

OWING to a well-known peculiarity of deltaic rivers, the water which is poured down upon the plains from the western hills greatly exceeds the volume which the lower channels are able to carry off. The rivers issue from the hills heavily laden with silt, which they deposit when their velocity is checked by the almost dead level of the delta; the fall in the Mahanadi and Baitarni averaging from about 2 feet per mile where they enter the plains to 9 inches per mile at tidal water, while that of the Brahmani is still less and does not anywhere exceed 14 inches per mile. The same process is repeated in the numerous channels into which they divide before they reach the sea; and their beds thus becoming gradually shallower, their capacity of discharge is greatly reduced. The most noticeable feature of this portion of their course is the meagre stream of water they bring down in the dry season, as compared with their great breadth, the shallowness of their beds and their paroxysmal violence at periods of flood. In the hot weather they are nearly dry and their beds consist of vast level stretches of sand, striped by long reaches of land-locked water, through which small streams meander from bank to bank. But in the rainy season, and especially after a storm has burst in Central India, they present an extraordinary contrast. These three great rivers collect the drainage of over 65,000 square miles; the entire rainfall of this enormous catchment area requires to find an outlet towards the sea; and the rivers rising with great rapidity dash down their concentrated floods on the small deltaic area of 3,600 square miles. The level strip between the mountains and the sea, which in itself has a rainfall of 60 inches in the year, has therefore to find an exit for the drainage of a territory of fifteen times its own area; and the distributaries and channels often prove insufficient to carry off this enormous volume of water.

In their upper reaches they have a rapid flow and carry away the soil, but when they reach the level plains, their speed is reduced, and their torpid current is no longer able to support the solid matter hitherto held in suspension. They

accordingly deposit it in their beds and on their banks, which are in this way raised above the level of the surrounding country. In fact, they practically run on ridges, and as their lower reaches have not a sufficient capacity for the vast amount of water they bring down in flood, they spill over their banks to a greater or less degree according to the chances of the season. In very high floods the excess discharge would inundate the surrounding country, were it not for the embankments; but even with the embankments a very large proportion pours down upon the rice-fields. Fortunately the periods during which these vast rivers remain in normal years in high flood are not usually of long duration. The source of the Brahmani supply being more or less local, it both rises and falls rapidly, the floods in it rarely lasting above five days; floods in the Baitarni also commonly last three or five days; and of the three rivers the Mahanadi takes longest to rise and remains longest in flood. In the rainy season therefore they would be liable to devastate the delta if left without control; and on the other hand, they fail to yield a trustworthy supply of water in the hot weather. The maximum recorded discharge of the Mahanadi is about 1,600,000 cubic feet per second, in the Brahmani it is about 650,000 and in the Baitarni 330,000 cubic feet per second; while the minimum recorded discharge is 70, 130 and 200 cubic feet per second in the Baitarni, Brahmani and Mahanadi respectively. An enormous mass of water, aggregating about 2,000,000 cubic feet per second, is thus thrown down in time of flood, while in the hot weather the total supply has been known to dwindle to about 400 cubic feet per second; and the great problem which Government has to solve is how to prevent the rivers from destroying the crops during the rains, and how to husband them for agriculture and commerce during the dry season.

The liability of the district to devastation by flood has been aptly described by Stirling. "The whole of the Mogulbandi", he says, "between the Chilka lake and the Brahmani river is peculiarly subject to inundation from its proximity to the hills, the astonishing rapidity with which the torrents descend in the rains, and the strange conformation of the channels of some of the principal rivers, which are very broad within the hills, but divide soon after leaving them into a number of narrow streams. As an instance of rapid rise, it deserves to be recorded that, during the heavy rains of 1817, the waters of the Cajori rose in one night a

EMBANK-
MENTS.

height of 18 feet, as ascertained by careful measurement. This immense volume of water, which was then perhaps one and a half mile in breadth by 30 or 40 feet depth, overtopped the general level of the town and station by a height of nearly 6 feet, and was only restrained from overwhelming them by a solid embankment faced with stone and supported by buttresses, the work of former Governments. The defence alluded to, however, called the revetment, has yielded in places within the memory of man, and the consequences were of course most tremendous. The Cuttack rivers are generally swollen to an extreme height about three times during each rainy season, and at such periods the crops and villages in many portions of the district are exposed to imminent hazard. To guard against the evil as much as practicable, embankments have been always maintained by Government at a large expense. The embankments or bunds are solid mounds of earth, well sloped and turfed on either side, the principal ones measuring from 40 to 50 and 60 feet in breadth and 8 to 16 feet in height. The havoc occasioned by the bursting of one of these large bunds is generally most serious. The torrent rushes through with a frightful roar and velocity, tearing up trees by the roots, prostrating houses, and washing clean away every trace of the labours of the peasantry. The devastations of the flood too are, in general, more permanently commemorated by a deposit of coarse sand, which renders the soil in the neighbourhood of the breach unfit for tillage for years afterwards."

Early
history of
the embank-
ments.

Embankments intended to secure protection against destructive inundation appear to have existed in very early times, but whatever ancient works there were must have been isolated; and it has been held that they were rather of the nature of mounds on which villages were built, while the country generally was open to inundation. Under the Maratha government the zamindars were bound to maintain embankments, and for this purpose were allowed certain deductions from the revenue they paid. This system, however, proved so eminently unsuccessful that from the earliest days of its administration the British Government undertook their maintenance and repair, and spent large sums on their upkeep. The old embankments were constructed at those places where the banks were specially low, in order to guard against the spill of the rivers during an ordinary flood. These embankments, by confining the spread of the water, raised

its level, and so necessitated longer and stronger embankments to resist the floods; these new embankments in their turn again raised the level of the water, and thus led to the addition of more embankments, so that their construction was steadily progressive. In 1831 they came under the charge of the Public Works Department; and it is evident that there was then no regular system of protective works, nor does it appear that any attempt was made to systematize until 1855, or that anything was done beyond maintaining and improving the existing embankments. The matter was then forced upon the notice of Government; in the preceding three years very destructive floods occurred which caused nearly 3,000 breaches, and finally the high flood of 1855, when the embankments were broken in 1,365 places, directed attention to the critical state of the revetment which protects the town of Cuttack, as well as to the broader question of destructive inundations in the district generally.

It was found that the head of the Katjuri was enlarged greatly after each year's flood, and admitted a larger volume of water than its branches could possibly carry off, while at the same time the head of the Mahanadi was silting up and not carrying off its proper portion of the floods. In order to remedy this evil, a spur was constructed at Naraj with the object of regulating to some extent the relative discharges of the two rivers in accordance with the capacities of their channels: this spur was subsequently developed into the Naraj anicut, and as such still regulates the volume of flood entering the Katjuri branch of the river. No systematic scheme was, however, sanctioned, as it was recognized that the proper control of such a vast river required the best engineering advice and experience; and it was decided not to enter on such a vast undertaking as the remodelling of the embankments till the whole question of the utilization of the water-supply of the delta had been examined. Sir Arthur Cotton was accordingly deputed to report on the measures necessary for the management of the Mahanadi; and as a result of his investigations, he came to the conclusion that the small works already executed had commenced to have effect, and that it would be easy to turn back the larger portion of the water into the Mahanadi. He pointed out, however, that this expedient would only restore things to their former state, which was such that the whole delta was

continually subject to awful droughts and flood; and he maintained that the only effectual remedy was to carry out a system of works which would completely regulate the waters of the Province, similar to those in the Godavari and Kistna deltas.

Canal
embank-
ments.

The canals which were eventually constructed were accordingly designed not only for irrigation and navigation, but also for protection from floods. The rivers run along the highest lines in the delta, so that when once they overflow their banks the surrounding country is inundated, and for a similar reason their margins present the most favourable alignments for canals intended for irrigation. Hence the general plan of the works was a series of canals leading off from the weirs at Cuttack, running along the margins of the great rivers, and having on the side next each river an embankment to keep out the floods. To control the flow of water down the respective canals and to regulate the discharge of the rivers in flood according to the natural capacities of the channels, extensive dams or anicuts of masonry were constructed with scouring sluices and sluices of discharge; and in order to afford relief from inundation, embanked escape channels were formed along the natural depressions which present themselves in the deltas of each river. This system was the first great attempt to grapple with the difficulty. There can be little doubt that, until the construction of the canals, the embankments were never thoroughly efficient; they were no doubt of some use in ordinary floods, and more or less protected villages from the strong currents; but in time of extraordinary floods they were of little use, and were generally liable to be breached.

System of
mainte-
nance.

In the year 1866 there were about 510 miles of Government embankments and 248 miles of zamindari embankments in the district; but most of the latter, when originally constructed, were of insufficient height and strength to withstand heavy floods, and had since fallen into disrepair and become useless. From 1866 onwards the embankments were much strengthened, but the question of the degree of efficiency in which they should be maintained was not raised till 1881. They had not been aligned on any scientific system, and it was physically impossible, without abandoning many of them and remodelling the remainder on an extensive scale, to render them capable of affording protection against

high floods. A special enquiry was made regarding the expenditure required to put them in an efficient condition; and it was ascertained that in the case of the embankments on the Mahanadi alone the cost would be 45 lakhs of rupees, and that it would be necessary to construct embankments of such an enormous height that in practice it would not have been possible to hold them except at a very heavy cost. It was accordingly decided at the end of 1881 that the embankments should be kept up in the condition in which they then existed. Since that year the embankments have been maintained in much the same condition of efficiency; in repairing them care has been taken not to raise their height; and unauthorized additions have been prevented, as it was found that in previous years they had frequently been raised or lengthened with the result that particular localities were protected, but that damage was caused elsewhere. A further examination of the embankments was therefore made in 1896 and 1897, in order that when any obligations which might be held to rest on Government under the existing settlement might expire, only those embankments might be maintained which were productive of good or at least not harmful. Many embankments, it was found, were maintained simply because they were in charge of Government in 1881, and not because they were supposed to be of any real use to the country; in some cases there is no doubt that they were actually harmful, though they might afford some protection to particular places; and other embankments, though still nominally borne on the list, had already been practically abandoned, as the country they were supposed to protect was covered by the works constructed in connection with the canals. As a result of this examination many embankments were abandoned. Government now maintains under Act XXXII of 1855, 471 miles of embankments situated along the banks of the large rivers, which protect an area of 1,024 square miles, while embankments extending over 265 miles are kept up in connection with the canals, which protect an additional area of 844 square miles. Vast sums have been expended from time to time on the maintenance of the embankments; from 1803 to 1830 over Rs. 8 lakhs was expended, of which half may be debited to Cuttack; from 1830 to 1866 over Rs. 7½ lakhs was spent in Cuttack alone; from 1866 to 1896 the expenditure amounted to Rs. 19 lakhs, and in the next 34 years Rs. 12 lakhs was spent.

Value of the
embank-
ments.

How grave the danger of inundation used to be may be realized from the fact that in 1857 it was proposed to remove the cantonment, civil station and town of Cuttack to the left or north bank of the Mahanadi, and to throw its site open to flood. Even at the present day it is impossible to assert that the embankments, as a whole, can withstand extraordinary floods, or that the measures taken have been effectual in restoring the equilibrium of the river channels generally. On the other hand, there is no question that, in spite of these defects, they have proved of immense value to the district generally. Formerly the cottages used to remain under water for long periods during the rainy season, and the raiyats had to remove themselves and all the movable property they could take to the adjacent high lands or to the hills. There they had to wait patiently until the water subsided, and then came down and repaired their houses. The canals have, to a great extent, put a stop to this, as their high embankments stand as a barrier to prevent the overflow of the water. Striking evidence of the protection now secured is afforded by the records of the high floods which have from time to time swept down on the district. The great flood of 1857 submerged nearly the whole country, though it did not rise beyond 123.48 on the Lalbagh gauge, whereas at the present day a flood of this height need not be dreaded; and though the flood of 1866 caused a disastrous inundation, when the highest level reached on the Bellevue gauge was 125.50, a flood of similar height in 1895 caused very little damage.

Recent
develop-
ments.

In July 1927 an unprecedented high flood occurred in the Baitarni river as the result of exceptionally heavy rainfall on the Keonjhar hills, where at one station a fall of 22.7 inches in 13 hours was recorded. This flood caused serious damage not only to embankments, canals and roads, but also to the Bengal-Nagpur Railway, so that through traffic on the main line between Calcutta and Madras was entirely stopped for about two months. Many houses and cattle were swept away, and even wild animals including elephants. A very serious breach occurred in the embankment between the Baitarni river and its offshoot the Burah river.

High floods were experienced also in the other rivers, the flooded tracts being very seriously affected, and it was in that year that Government decided to have examined by a

committee of experts the whole question as to what action is possible to mitigate injurious flooding in the deltaic tract of Orissa. A committee consisting of Mr. Addams-Williams, Chief Engineer of Bengal, Mr. D. G. Harris, Consulting Engineer to the Government of India, and Rai Bahadur Bishun Svarup, a recently retired Chief Engineer of Bihar and Orissa, toured twice through Orissa and submitted a report in 1928.

The general conclusions arrived at by the committee were that flooding is inevitable, but that its violence and resulting injurious effects have been increased in considerable areas by protecting other neighbouring areas by means of embankments constructed both by Government and zamindars without any scientific system or adequate control.

They expressed an opinion that embankments in the long run are ruinous to the areas which they protect, as they deprive them of the land-raising silt brought by floods, and thus eventually convert them into badly-drained depressions liable to disastrous flooding. Accordingly they opposed embankment construction, recommended systematic and strict control of all existing embankments, and a general policy of gradual removal of all embankments which could be abolished without unbearable injury to property either private or of Government. Their report contains a large number of specific recommendations for administrative action and engineering works calculated to mitigate flood injury.

The Government accepted more or less the general conclusions of the committee, except that in view of the very extensive vested interests and rights involved they expressed doubt as to the real practicability of the advocated general policy of gradual but ruthless removal of existing embankments; and have since ascertained that there is very great opposition to the throwing open of protected areas to floods in the interests of unprotected areas. One of the recommendations acted on very early is the separation of the Public Works charges dealing with embankments and flood disposal works from those dealing with the canals and irrigation, and there now are two special embankment divisions with headquarters at Cuttack employed in designing and constructing flood-disposal works, and generally carrying out the policy advocated by the Expert Flood Committee. The principal works in hand or

contemplated in the Cuttack district are for controlling a marked tendency of the Brahmani river to deteriorate and throw its flood waters eastwards into the Kharsua river and the low-lying basin between that river and the Brahmani—also for opening up a flood spillway from the Brahmani to the sea on its right bank downstream from Alba.

CANALS.

While embankments have existed from the earliest times in Cuttack, canals date from a comparatively late period in the history of the district. The first proposal to employ the rivers of Orissa for irrigation came from General Sir Arthur Cotton, who was deputed to visit the Province in 1858 with the object of giving advice as to the control of the flood waters of the Mahanadi. He recommended the construction of a complete system of irrigation and navigation canals, following the principles then being carried out in the deltas of the Godavari and Kistna. He estimated that an area of $2\frac{1}{2}$ millions of acres might thus be irrigated, and that navigation might be opened up between Orissa, Midnapur and Calcutta, for a sum of Rs. 130 lakhs. Here, as elsewhere, Sir Arthur Cotton attached special importance to making the canals navigable, and pointed out how completely Orissa was cut off from the rest of India, destitute as it was of roads, railways or harbours, and traversed by a succession of formidable and unbridged rivers. In 1860 the East India Irrigation and Canal Company was formed for the purpose of carrying out the works in Orissa, and water was first supplied for irrigation in 1865. The works, however, were not sufficiently advanced to be of any real use in the terrible famine of 1866, though they supplied an excellent form of relief labour in the distressed districts. Before this it had become evident that the original estimate would be largely exceeded; and as the Company found it difficult to raise further funds, the Government of India purchased the whole of the works for the sum of Rs. 109 lakhs and in 1869 the Company ceased to exist.

From the first, irrigation in Orissa made very slow progress. The works, however, proceeded, and in 1873 it was decided to provide for an irrigable area of 1,140,000 acres in Orissa at an estimated cost of Rs. 441 lakhs. This area was to include 500,000 acres in the Balasore and Puri sections of the scheme, which had not then been put in hand and were soon after abandoned. The works sanctioned included the Taldanda and Machgaon canals for the irrigation of the lands

between the Mahanadi and Katjuri rivers ; the Kendrapara and Patamundai canals for the irrigation of the area between the Chitartala and the Birupa, and three ranges of the High Level canal for the irrigation of the strip of country lying at the foot of the hills from Cuttack to Bhadrak. By 1874 the greater part of this scheme was completed, but collections proved very disappointing, and in 1884 a revised scheme was approved for the extension of the Taldanda and Machgaon canals and for the construction of new distributaries, bringing up the total estimate to Rs. 3,23,00,000, of which Rs. 2,02,00,000 had already been expended. The project then approved has been completed, and besides this the Machgaon canal has been extended to the village of Nagpur, one additional canal, with a total length of 7 miles, has been constructed from the junction of the Baitarni and Burah to Jajpur, and a number of distributaries have been added. A channel, known as the Dudhai canal, taking off from the north end of the Brahmani weir, was also constructed. It had been completed for 36 miles out of a sanctioned length of 46 miles, and was intended to irrigate about 12,000 acres of spring rice in the area between the Brahmani and the Kharsua rivers. This channel has proved a failure and has been abandoned since November 1930.

The general plan of the work is as follows. Near the ^{Canal} point where each river bifurcates on debouching into the plains, ^{system.} a weir is constructed across the head of each branch, partly for the purpose of retaining the water at a suitable level for irrigation, and partly in order to distribute the flood discharge in suitable proportions between the different branches. From the flanks of these weirs marginal embankments run, if necessary, both up and down stream, so as to confine the floods to the river channels, and from the same points are led off the canals which conduct the water to the lands below. Provision is made by means of a net-work of smaller branch canals for the distribution of the water to the areas commanded. These channels, called distributaries, lead the water to within a certain distance of each village, and the more detailed distribution of the supply to the lands of each village is made by still smaller branches, termed village channels. The system now includes 268 miles of main canals and 1,300 miles of distributaries, including minor or village channels, of which all but 19 miles of canals and 92 miles of distributaries and minor channels lie in this district. The canals themselves

branch off from Cuttack to the north, south and east, so that the four sides of the delta thus covered enclose a square of which the northern boundary is the Baitarni, the western the High Level canal, the southern the Machgaon canal, and the eastern the Bay of Bengal, while the Kendrapara canal may be said to form the diagonal of the square.

Weirs.

The system derives its supply from seven great weirs with an aggregate length of $3\frac{1}{2}$ miles, which, with the canal head sluices and entrance locks, constitute one of the most extensive systems of canal head works in India. Three of these weirs have been built in order to utilize and control the huge water-supply of the Mahanadi, viz. the Naraj, Mahanadi and Birupa weirs; and the other four weirs are on the Brahmani and Baitarni. The Naraj weir, which was constructed on the line of the old stone spur already mentioned, leaves the right bank of the Mahanadi below Naraj, and runs obliquely downstream for a length of 3,833 feet until it meets the dividing embankment, which was originally intended to connect it with the island on which Cuttack stands. The Mahanadi weir runs across the head of the main branch of the Mahanadi at Jobra immediately below Cuttack, and supplies water to the Taldanda canal and its branch, the Machgaon canal. It has a length of 6,349 feet between its abutments, and is pierced with two sets of scouring sluices, one of which has been placed at the south end of the weir, in order to prevent any accumulation of sand in front of the head sluices of the canal and the entrance to the Jobra lock, while the other is situated near the centre of the work, and serves the purpose of keeping a deep water channel open for navigation in the pool above the weir. The Birupa weir is situated on the river of that name about $1\frac{1}{2}$ miles below its head; its length is 1,980 feet between abutments; and it is furnished with two sets of under-sluices, and supplies water to the Kendrapara canal system and the High Level canal, Range I. All these three weirs were constructed in a similar manner, and consist of a body wall of masonry, founded upon wells sunk into the sandy bed of the river, which is protected on the upstream and downstream sides by means of aprons of dry stone. The other four weirs are the Brahmani and Patiya weirs on the Brahmani, and the Baitarni and Burah weirs on the Baitarni, the Baitarni weir being in the Balasore district. They were intended to supply water to the second and third ranges of the High Level canal, the Jajpur canal,

and to the Dudhai canal on the left of the Brahmani; but since November 1930 the High Level canal, Range II, and the Dudhai canal have been abandoned, and the Brahmani and the Patiya weirs are now of no utility for the irrigation works. The Brahmani weir has a length of 4,000 feet, and is situated at Jenapur at the outfall of the High Level canal, Range I, while the Patiya weir, which has a length of only 783 feet, has been built on the Patiya, immediately below the outfall of the Ganda Nala at the head of the abandoned High Level canal, Range II.

The Flood Committee have recommended the dismantlement of the Brahmani weir in the interest of maintaining the river in its channel.

The canals which obtain a supply of water for irrigation and navigation from these seven weirs are (1) the High Level canal, 3rd Range, in Balasore district; (2) the Jajpur canal running to Jajpur; (3) the Kendrapara canal, with its extension to Jambu and two branches called the Gobri and Patamundai canals; besides these another canal, called the Gobri Extension canal, is supplied with water from the Kendrapara canal by means of the Patamundai canal; (4) the Taldanda canal, with its branch, the Machgaon canal. Of the two main sections into which the district is divided by the rivers which traverse the delta, the tract between the main stream of the Mahanadi and the Brahmani is irrigated by the Patamundai canal on the north, and the Kendrapara canal on the south, the Gobri canal forming a connecting link between them to the east. Both these systems draw their supply of water from the south flank of the anicut across the Birupa, which also feeds the High Level canal. The anicut across the main branch of the Mahanadi feeds the Taldanda and Machgaon canals, which water the northern and southern edges of the tract between the Mahanadi and Katjuri. All these canals maintain a high level along the banks of the rivers, which are always higher than the intermediate alluvial tracts.

The High Level canal was designed to provide a navigable trade route between Cuttack and Calcutta, and also to irrigate the country through which it passes. It starts from above the left flank of the weir across the Birupa, $1\frac{3}{4}$ miles below the departure of that river from the main stream of the Mahanadi, and runs thence along the foot of the hills north-eastwards, through the Cuttack and Balasore districts. The original

The High Level canal.

scheme was to carry the canal across the district of Midnapore to meet the Hooghly river at Ulubaria, below Calcutta, a total distance from the starting point of 230 miles, so as to connect Cuttack with Calcutta by one long canal. This great scheme has, however, been abandoned, and only three ranges have been completed, of which Range I, covering a distance of 33 miles from the Birupa to the Brahmani river, and the now abandoned Range II from the Brahmani to the Baitarni river, a distance of $12\frac{1}{2}$ miles, lie within this district. The two ranges commanded an aggregate area of 57,495 acres, of which an area of 20,949 acres is irrigated now from Range I. The High Level canal is the most picturesque of all the canals of Orissa, skirting the base of the wooded hills along the western boundary. The traveller looks eastward over almost boundless rice plains, the level surface of which is broken only by a few hills that here and there rise steeply from the surrounding country, while to the west is a vista of range upon range of rugged hill and valley in endless confusion.

The Jajpur canal.

The Jajpur canal, starting from the head-works at the point of bifurcation of the Baitarni and Burah, runs $6\frac{1}{2}$ miles to the town of Jajpur. It has a discharge of 600 cubic feet per second and it commands 70,000 acres. It is one of the youngest members of the Orissa system, and secures from drought the valuable rice-growing lands lying in the tract between the Baitarni and Kharsua, where formerly the low-lying villages could only be irrigated with brackish water from the creeks.

The Kendrapara canal.

The Kendrapara canal, which was opened in 1869, is the oldest and most important canal in the district. Taking off from the Birupa river at Jagatpur just above the anicut, it skirts the northern bank of the Mahanadi and its tributary the Nuna, running nearly due east to Marsaghaj, up to which point it is navigable. It has a total length of 39 miles and a discharge of 1,067 cubic feet per second. The area commanded by it is 106,159 acres, and its 23 distributaries are capable of watering 62,432 acres. It irrigates the country between the Mahanadi and the Gobri drainage channels, its right bank forming a protective embankment as well as a thoroughfare for the people. The country it commands comprises some of the most highly assessed parganas in the district. The Kendrapara Extension canal is a continuation of it, which runs between Marsaghaj and the Jambu river, a distance of

about 15 miles. It was originally constructed with the object of improving communications between Cuttack and False Point harbour, into which the Jambu flows, but it is also capable of supplying water for irrigation purposes to a small area.

The Gobri canal is a branch of the Kendrapara canal, from which it takes off in the 28th mile. It has a total length of 15 miles and commands 18,850 acres, but the distributaries constructed can only irrigate 6,599 acres. It was originally intended to be a distributary of the latter canal, but was afterwards made navigable in order to facilitate communication between Cuttack and Chandbali, and it now forms part of the main route between the two places. The Gobri Extension canal is only 6 miles long, but commands an area of 12,717 acres, of which, however, only 5,174 acres can be irrigated by the distributaries constructed. It derives its water-supply from the Patamundai canal, and forms the connecting link between the terminus of the Gobri canal on the Gandakia river and the Brahmani at Alba.

The Patamundai canal branches off from the Kendrapara canal just below the Birupa head-works, and skirts the southern bank of that river and of the Brahmani river for a total length of 48 miles. It has a discharge of 885 cubic feet per second, and commands an area of 54,800 acres, its distributaries being capable of irrigating 19,638 acres. It is provided only with weirs and is therefore impracticable for navigation, but it irrigates some of the richest lands in Orissa, and its left bank protects a large tract from the floods of the Birupa and Brahmani rivers.

The Taldanda canal starts from the right bank of the The Mahanadi immediately above the anicut at Jobra, and runs in a south-eastern direction to Birbati, where it gives off the Machgaon branch. Thence it runs along the southern bank of the Sukpaika and the Mahanadi for a total length of 52 miles. It has a discharge of 1,342 cubic feet per second, of which about half is taken off by the Machgaon canal, and it commands 42,939 acres. It was designed for the purpose of irrigating the triangular tract of country between the Mahanadi and Katjuri; but it is navigable by boats of a considerable size, and provides an alternative route from Cuttack to Chandbali via the Hansua creek.

The Machgaon canal leaves the Taldanda canal 7 miles south of Cuttack, and runs along the north bank of the Katjuri and of its branch, the Alanka, for a distance of 32 miles; it has a discharge of 776 cubic feet per second and commands about 120,000 acres. It was originally intended to carry this canal as far as Machgaon so as to run into the tidal water of the Devi river, and thus establish connection with the sea, but this scheme was never carried out. It stops 6 miles short of Machgaon.

Canal
revenue.

When the project was first mooted, the most sanguine expectations were entertained as to the revenue the canals would yield; and in 1867 the Directors of the East India Irrigation and Canal Company estimated that the scheme would eventually return a net income equal to 21 per cent of the outlay. These hopes soon proved delusive. It was found that the receipts did not cover the working expenses, while the interest on the loan steadily accumulated and quickly amounted to a sensible addition to the capital outlay. The hopes of a steadily increasing demand for water were dispelled, and though the outlay was very large, the incomings were insignificant. Six years after water was first offered to the people, irrigation was as far from general adoption as it was at first. By steadily refusing the water on the terms originally offered, the peasantry succeeded in beating down the rate, and the use of canal water then gradually extended. The works have, however, never been a success financially, and even up to the present day the outlay has proved unremunerative. The average annual working expenses for the five years ending in 1900-01 were Rs. 4,91,830 and the average gross revenue from all sources was Rs. 4,67,913 so that the working expenses were not covered. The position has improved a little since, as the average annual expenses for the ten years ending in 1929-30 on the whole Orissa Project stand at Rs. 6,55,354 and the average gross revenue from all sources at Rs. 7,37,885, but the total net revenue realized up to the end of the year 1929-30 amounted to only .49 per cent of the capital outlay; the total capital cost, exclusive of interest charges, was Rs. 2,71,87,299, and the interest alone amounted to Rs. 5,43,12,935.

Various causes have combined in falsifying the expectations which were originally entertained. The cost of the work was greater than was expected, the area under irrigation has

not come up to the early forecasts, the navigation receipts have never been large, and the rates charged for irrigation are decidedly low. As already stated, Sir Arthur Cotton estimated that $2\frac{1}{4}$ millions of acres might be irrigated, whereas the average area is only about 200,000 acres. His estimate was doubtless a very rough one, and it probably included every acre of land within the Mahanadi delta and in the tract to be commanded by the Midnapore canal, without reference to the question whether it was cultivable or would take water. The areas shown in the revised project of 1873 again were estimated on the assumption, for which there was little warrant, that 500 acres in every square mile would be irrigated, so that the gross area commanded in Orissa would have been 1,140,000 acres or 820,000 acres excluding the Puri and Balasore sections. The area actually commanded by the present system of distributaries is estimated at 528,534 acres of which only 274,625 acres or about 333 acres per square mile commanded are irrigable; all of this is practically confined to this district, in which the culturable area commanded is 468,414 acres, of which 231,028 acres are irrigable. The balance is either uncultivable, or lies too low to take irrigation or too high to be irrigated otherwise than by lift, and lift irrigation is hardly practised at all. It is doubtful, therefore, whether the average area that can be irrigated by the present canals will ever exceed 250,000 acres, though there is no difficulty in regard to the water-supply, which is generally sufficient for all the land which is ever likely to take irrigation.

Those who enthusiastically quoted the success of irrigation in the Madras deltas seem to have forgotten that in those tracts the rainfall does not exceed 40 inches, whereas in Orissa it amounts to 60 inches per annum. The normal rainfall being ample, the value of canal irrigation is exceptionally dependent on the character of the season, and the raiyats do not consider canal irrigation so absolutely indispensable as to make it worth their while to pay anything but a small water-rate or to have all their land irrigated. Nothing shows more clearly why the canals have fallen so short of the expectations of revenue which were at first so general than the way in which the area under irrigation has varied and the people have refused to pay high water-rates. The question of the rates to be charged for water does not appear to have been considered at the time that the Company was formed;

but after the works were taken over by Government in 1868, a scale of rates was notified which in practice proved to be prohibitive, viz. Rs. 6 per acre for sugarcane, Rs. 5 for certain other crops and Rs. 3 for any single crop not remaining more than six months in the ground. The people declined to pay such high rates, and were also afraid that irrigation would be made an excuse for enhancing the rents and revenue. To allay their apprehensions, a proclamation was issued by Government, declaring the water-rate to be wholly distinct from land revenue, and promising that at the next revision of the settlement no increased rate of assessment would be imposed on any lands by reason only of their being irrigated. These promises failed to produce much effect, and a much more effective inducement to take water was afforded by the gradual reduction of the rate to Rs. 1-8-0 per acre. As a result of this measure, irrigation increased slowly, but on the whole steadily, and by 1876-77 there were 30,000 acres watered from the canals. There was then a great demand for the privilege of irrigation due to the high prices and scarcity of water in 1878, the year of the Madras famine, and to the introduction of the system of five-year and one-year leases. The area under irrigation rose suddenly to 98,000 acres and increased to 133,000 acres in 1882-83. In 1883, however, there was a drop to 48,760 acres, as most of the leases expired and the people refused to renew them. The reason for this appears to be that in the eyes of the cultivator the chief value of the water lies not in any improvement it may render possible in the outturn of an ordinary year, but in the protection it affords in years of drought. This being so, the peasants are always disposed to put off renewing their engagements till a period of drought occurs; and this tendency was accentuated by the fact that in three out of the preceding five years the rainfall had been sufficient and timely, and consequently the benefit derived from the canal irrigation had been comparatively small. They soon began, however, to realize that the loss of their crops from drought more than counterbalanced the saving of the water-rate; the area slowly extended, and with the next quinquennial period a much larger number of leases were executed, and the maximum of 186,627 acres was reached in 1889-90. A few years of abundant and excessive rainfall brought the irrigated area down to 119,460 acres in 1896, when the drought created an universal demand for water, and the irrigated area rose at a bound to 207,015

acres. Since that year it has increased but little; the average area irrigated in the three years ending in March 1930 was 243,435 acres, the maximum of 250,390 acres being reached in 1927-28, and in 1930-31 the area supplied was 214,888 acres. In the year 1922 the water-rates were raised to Rs. 3-8-0 for long-term leases and Rs. 4-8-0 for season leases, mainly because at that time the price of grain was high; but the effect of this raising of rates has been a decided reluctance to renew expired leases especially on the canals from the Baitarni, and it has now been decided to reduce the rates again to Rs. 3 and Rs. 4-4-0 on the canals of the Cuttack district, and to Rs. 2-8-0 and Rs. 4 on High Level canal, Range III.

A very large sum was expended in making the canals **Navigation.** first-class navigation lines, as great importance was attached to this source of income. It was confidently expected that there would be large traffic along these waterways, and that the receipts from tolls would give the State a profitable return for the money spent on them. It might, indeed, reasonably have been expected that, if navigation could be a success anywhere, it would be in Orissa. The country was in a terrible state of isolation without internal and external communications, and it was naturally anticipated that the canals would attract all the local trade and form cheap routes connecting all parts of the country. It is clear however that, after 60 years of a very fine system of navigable canals, the people have not taken to navigation. Carts and pack-bullocks still constitute the chief means of transport, and even when canals are available, the people seldom use boats. The navigation receipts have, therefore, always been an insignificant source of income, and since the opening of the railway they have still further diminished, falling from Rs. 1,94,100 in 1897-98 to Rs. 78,153 in 1901-02. The tollage rates were reduced in the year 1903 and the tonnage borne along the canals increased; but even so the tollage only amounted to Rs. 68,489 in 1903-04. The rates for tollage were increased in the year 1923 but the average tollage for the five years ending in 1929-30 amounted to Rs. 87,301 only. There does not appear, therefore, to be any likelihood of navigation ever proving of much value as a source of income.

This large irrigation system is under the control of a **Canal** Superintending Engineer, who is assisted by one Executive **adminis-** Engineer in charge of a division known as the Mahanadi **tration.**

division. The latter is responsible for the maintenance of the canals and the conduct of irrigation operations; and a separate establishment is entertained for the collection of the revenue. For this purpose there is a revenue division in charge of a special Deputy Collector who sees to the assessment and collection of water-rates under the orders of the Superintending Engineer. The irrigated area is divided into blocks, the lease of all the lands in each block being arranged so as to lapse in the same year, while efforts are made in fixing the period of the lease of these blocks to see that leases for an equal area expire each year. Water is supplied to the cultivators, on application on a prescribed form, the year being divided into three seasons, that is the hot weather from March to June; *kharif*, from the 16th June to the end of October, and *rabi*, from November to the end of March. Dates are fixed for each season, and a lease or permit granted for the season is only in force for that particular period. Besides these season leases, there are long-term leases, or leases for periods up to ten years, which are granted at a reduced rate, and secure a supply of water from the 16th June to the 31st March in each year. These long-term leases are only granted for compact blocks defined by well-marked boundaries of such a nature that the leased lands can be clearly distinguished from the adjoining unleased lands, and also so situated that unleased lands will not be ordinarily irrigated by water supplied for the land included in the block. These boundaries are mentioned in the application for the lease, on receipt of which a special report is submitted to the Executive Engineer. If the lease is approved, that officer issues orders for the block to be measured, and a detailed *khasra*, or measurement of each cultivator's holding, is then made. The lease is finally approved by the Executive Engineer, who issues the permit, but before this can be done, every cultivator who has fields within the block, must sign his name against the area which has been measured, and which will be assessed in his name. In order to admit of a block getting water for the first season, a provisional permit is granted for the season on the area originally applied for; this permit is cancelled when the long-lease permit is finally granted. Fields which cannot be ordinarily irrigated, or for which canal water is not ordinarily required, can be excluded from the block at the discretion of the Executive Engineer, such fields being duly noted in the *khasra* or measurement paper. In these long-term leases:

Water-rates are charged for the area measured and accepted by the cultivators, whether water is required or not. In *rabi* and hot weather leases, water is supplied on application, and water-rates are levied on the actual areas irrigated, and not necessarily on those specified in the application. In order to assist the canal department as far as possible in the assessment and collection of water-rates, influential men of the village, called "representatives" are appointed on the approval of the majority of the cultivators concerned. Their duty is to assist in measurements, in procuring and attesting signatures to applications for leases, and in collecting the rates. In return for this work they are entitled to the payment in cash of a remuneration not exceeding one and a half per cent yearly on the whole sum assessed in the village, when the collection of that whole sum is completed.

The present practice is to give long-term block leases, which often extend to ten years, but in order to discriminate between the various classes of land forming a block, different rates are charged. Thus lands lying so low that they never require irrigation, although water may often flow into them, are excluded from assessment; while a special rate of Rs. 1-12-0 per acre is charged on those lands which derive benefit from irrigation only in exceptionally dry years. The rate was originally 8 annas per acre, which was increased to 12 annas in the year 1912, was subsequently enhanced to Rs. 1-8-0 per acre in the year 1920, was ultimately raised to Rs. 2 per acre in the year 1922, and has recently been reduced to Rs. 1-12-0. The rate charged for other land, or the ruling rate, was formerly Rs. 1-8-0 per acre, but it was raised to Rs. 1-12-0 in the year 1902, to Rs. 2 per acre in the year 1912; it was subsequently raised to Rs. 2-8-0 in the year 1920, and to Rs. 3-8-0 per acre in the year 1922, but has recently been reduced to Rs. 3 per acre. There are other leases for which different rates are charged, but the figures for such leases are so poor that they are not worth mentioning. The average or all round rate is about 9 annas less than the ruling rate, and it amounted to Rs. 2-15-0 during the three years ending 1929-30. The long lease is the only system which is suited to these canals, as it tends to prevent loss of revenue in seasons in which irrigation is not required, and it is popular with the cultivators. The fact nevertheless remains that, after many years' nursing of the lease system, it has not been possible to induce the Oriya cultivator to pay a long-lease

rate of more than Rs. 3 per acre for all the advantages of irrigation and protection from floods which the canals confer on him.

Value of
canals.

On the subject of the effect of the canals on rent levels Mr. S. L. Maddox, I.C.S., in his final report on the 1897 settlement wrote: "There is little, if any, evidence of general enhancement of rents on the ground of irrigation, or of higher rates in irrigated than in unirrigated villages, though there is evidence that rent rates have risen more in the protected and irrigated tracts than in the unprotected and unirrigated. There is, however, some reason to think that irrigation causes the lowest rents to rise, and in fact has a tendency to equalize rents through an irrigated area. The increase of cultivation is certainly no greater in the protected and irrigated group, all the enquiries made have failed to elicit any evidence of a substantial extension of cultivation to lands which but for the canal water were not likely to have been reclaimed. Amidst the mass of conflicting information on the subject of the increase of rent rates, one fact alone can be held to be abundantly proved, and that is that the cases in which a zamindar has openly enhanced rents on the ground of the accessibility of canal water, or has imposed an irrigation cess of his own are very rare". Elsewhere in India the rents of irrigated land are sometimes two or three times higher than those of unirrigated land. Here, however, despite increased crops and assurance against drought, the tenant declines to pay a higher rent and will only pay a very small water-rate for the privilege of irrigation. It must be inferred then that the profit due to irrigation has been very small.

It must not, however, be assumed that these canals are of no value to Cuttack. Apart from any increase which it may have caused in rentals, the canal system is of great value as a security against loss caused by floods and drought. Formerly the landlord's income was precarious because their tenants were liable to failure of crops from these causes. Now there is no such uncertainty, as in the area embanked and provided with distributaries there is protection against devastating floods, and water is available in time of drought for whoever needs it. In the 36 years prior to their construction, 1831-32 to 1866-67, floods sufficiently disastrous to necessitate remissions of Government revenue occurred eight

times. The remissions made on this account amounted to over Rs. 8 lakhs, and how small a proportion this bears to the total loss suffered in these eight years of disastrous flood may be judged from the fact that in the year 1866, the events of which formed the subject of minute enquiry, the remissions were found to represent only 5 per cent of the estimated loss. The people, we learn, used to be kept on the alert every year for two or three days and nights waiting for a signal to fly to the highest ground available, and were obliged to see their houses washing down on all sides without having any power to save them. The canal embankments now protect nearly 550,000 acres, and even the greatest floods are powerless to devastate all the country. Immunity from famine is, however, perhaps of even greater value than protection from flood. It appears from the report on the inundations of 1866 that remissions on account of drought, amounting to Rs. 14½ lakhs or about two years' revenue, were granted in Cuttack in five out of the 36 years ending with 1866-67; and as no remissions were granted unless the loss exceeded one-fourth of the produce, it may be accepted that the losses from drought were both more frequent and greater than is suggested by these figures. No such remissions have been necessary since the construction of the canals and it is certain that, if so terrible a calamity as that of 1865 were again to befall Cuttack, the district would be in a far better position to withstand it. To quote the conclusion arrived at by the Indian Irrigation Commission of 1901-03: "there is no urgent need for further famine protection to the plains of Orissa; and indeed there are few parts of India more secure, or in which the value of irrigation bears so small a proportion to its cost".

CHAPTER VII.

NATURAL CALAMITIES.

LIABILITY
TO NATURAL
CALAMITIES.

THE most difficult problem which the administration in this district has to face is its liability to loss of life and property from natural calamities. The rainfall is in most years ample for its needs, but it is precarious, and its early cessation is fatal to the rice crop on which the people depend. In the deltaic tract which forms the greater part of the district, the difference of level between the high and low-lying lands is so slight that, in the event of scarcity of rainfall, all parts are equally affected. The low lands are not sufficiently below the level of the uplands to retain moisture for any considerable time after the rains have ceased, and in years of drought the crops grown on them do not compensate for the loss of those which may be burnt up on the arid higher levels. A drought is, therefore, liable to affect Cuttack more seriously than those districts, where the difference of level between the uplands and the low-lying tracts is sufficient to cause the sterility of the former to be compensated by the increased fertility of the latter. Since the droughts, however, of 1836, 1837, 1842 and 1865-66, all of which caused more or less distress, and the last of which brought on the great famine of Orissa, large irrigation works have been constructed which yield an ample supply of water, so that the district may be now said to enjoy comparative immunity from famine, even when there is a protracted cessation of the rains. As a matter of fact, of late years there has been no ground for any great anxiety on the score of drought, although the deficiency of rainfall has in several years seriously affected the outturn of crops. The area regarded in 1921-22 as liable to famine was 2,859 square miles with a population of 1,097,000, and it was estimated that the maximum number of persons likely to require relief in the event of serious famine would be 86,000, of whom 70,000 would be provided for by relief works, while 16,000 would require gratuitous relief. The great increase in transport amenities, facilitating emigration and rapid movement of supplies, has, however, rendered such estimates entirely speculative.

The next great danger to which the district is exposed is that of inundation. The greater part of the tract of country

which it occupies is liable to suffer from the floods of the Mahanadi, Brahmani and Baitarni, as the channels of those rivers are insufficient to carry off the great volume of water which comes down after heavy rain from the table-lands of Chota Nagpur and the Central Provinces. These floods arise from sudden freshets of the rivers before they enter the district and not from excessive rainfall in it; and though a low flood does little harm, as it is prevented from devastating the country by the embankments, the high floods which sweep across the rice-fields do great damage to the standing crop, as they generally occur in July, August and September, when the rice is in the first vigour of its growth, or is in flower or nearing maturity. It sometimes, though fortunately rarely happens that the district is visited with the double calamity of flood and drought in the same year, the former occurring in the early part and the latter towards the close of the season.

Less frequent but scarcely less serious damage has been caused by storm-waves on the sea-face; and though the low lands are to some extent embanked against the sea water, violent cyclones breach the embankments and cause great loss of life and property. These cyclones are fortunately rare; they are generally generated during the transition periods antecedent and subsequent to the full establishment of the south-west monsoon, i.e. during the months of April and May, October and November. Their most striking features are the great barometric depression in the centre and the magnitude of the storm area. These two causes produce a large accumulation of water at and near the centre, which progresses with the storm and gives rise to a destructive storm-wave, when the centre reaches the shelving coast. It then sweeps inland and the damage caused is terrible and widespread.

Previous to the inception of the great Orissa canal system **FAMINES.** droughts and famines were of frequent occurrence. Historical **Early** records show that terrible famines occurred in the 14th, 15th **famines.** and 16th centuries, and during the rule of the Marathas the district suffered grievously from repeated famines. In the memorable famine of 1770 the land lay untilled; rice was not to be had at two seers per rupee; and while the people were dying by hundreds of thousands, the Maratha soldiery plundered and devastated the country. Four years later another scarcity is said to have occurred, and in Cuttack town

rice could scarcely be purchased at 10 annas for the local seer (105 tolas). In 1780 the whole country had sunk into such absolute desolation that there was not a single place except Puri and Cuttack which could furnish even one battalion with provisions. In 1792-93 the miserable peasants again experienced the horrors of famine; scarcity followed in 1803; and when the district passed into the possession of the British the condition of the country was wretched. A large portion of the land has been thrown into waste; many of the people had fled to the jungle, and the population was insufficient to till the fields. Under British administration an era of prosperity has ensued; with an improvement in their material resources, the people have displayed far more staying power in bad years; cultivation has extended; and though there have been frequent droughts, they have only once culminated in famine.

Famine of
1865-66.

The years 1806, 1808, 1809, 1817 and 1828 were years of bad crops and scarcity, and in 1836, 1837 and 1842 Cuttack suffered severely from drought; but the only really great catastrophe of the century was the famine of 1865-66. No such calamity had occurred for nearly a century; it had to be dealt with by a body of officials necessarily ignorant of the signs of its approach, unprepared to expect it, and inexperienced in the administration of relief measures; nor were the inhabitants more aware of what was coming on them than the British officers. The rainfall of 1865 was scanty and ceased prematurely, so that the outturn of the great crop of winter rice, on which the country mainly depends, was reckoned at less than a third of the average crop. Food-stocks were low, both because the quantity exported in 1865 was unusually large and because the people, unaccustomed to precarious seasons, had not retained sufficient stores at home. When the harvest failed, the gravity of the occasion was not perceived and no special inquiries were instituted; while prices long remained so moderate that they offered no temptation to importers and forced no reduction in consumption on the inhabitants, till suddenly the Province was found to be almost bare of food. It was only in May 1866 that it was discovered that the market were so empty that the jail prisoners and the Government establishments could not be supplied. But the southern monsoon had now begun and importation by sea or land became nearly impossible. Orissa was at that time almost isolated from the rest of India; the

only road leading to Calcutta, across a country intersected by large rivers and liable to inundation, was unmetalled and unbridged; and there was very little communication by sea. By great exertions, the Government succeeded in importing about 10,000 tons of food-grain by the end of November; and this was given away gratuitously, or sold at low rates, or distributed in wages to the starving population. But meanwhile the mortality among those whom this relief did not reach, or reached too late, had been very great; and it was estimated that nearly 1,000,000 persons had died. Though the general famine may be said to have come to an end in November when the new crop began to come into the market, great distress still continued in some parts of the country. The rainfall of the year was so heavy as to cause great floods in the river Mahanadi, and though the harvests in the higher lands were excellent, in all the low lands the crop was drowned. Half the district of Cuttack was thus devastated; in January 1867 forty deaths a day from starvation were reported; and the work of relief had to be taken up again. Altogether about 40,000 tons of rice were imported and lavishly distributed; and about half had been disposed of when the monsoon of 1867, followed by an unusually fine harvest, altogether put an end to the famine in 1868. No complete statistics of the numbers relieved and of the expenditure incurred are available, but the mortality was estimated at one-fifth to one-fourth of the population, and altogether nearly Rs. 1½ crores was expended in Orissa during this famine.

The preceding summary of the history of the Orissa famine is condensed from the Report of the Famine Commissioners of 1868, but the catastrophe in Cuttack was so great that a fuller description of the way in which it affected the district seems to be required. The rice crop in the year immediately preceding the total failure of the winter crop of 1865 appears to have been a fairly good one in Cuttack. Even as late as August 1865, prices continued easy, and in that month large purchases were made by a French mercantile house at from 30 to 35 seers per rupee. Though the rainfall of 1865 was below the average, the prospects of the crop seem to have been, on the whole, good up to September; but the last heavy fall took place on the 6th of that month and after the 18th the rains stopped entirely. Up to October rice

**History of
the famine
in Cuttack.**

continued to be tolerably cheap in Cuttack, the crops were generally promising, and even in the middle of the month people still hoped that a timely fall of rain might save the crop. When, however, the middle of October passed without any sign of rain, the alarm became serious, and by the 20th; the whole country was in a panic. The rice trade was stopped; the country ceased to supply the towns, and at Cuttack the bazars were closed. This refusal to sell, which now manifested itself for the first time was repeated at intervals throughout the famine; and it was symptomatic of its character, as rather due to scarcity of grain than scarcity of money, that each fresh occasion of alarm constantly took the shape of stopping sales at the regular marts altogether rather than of mere sudden enhancements of price. Some dealers really had no grain; others were unwilling to sell on the old terms, and were afraid to raise the terms too suddenly; and the remainder felt themselves unable to meet the demands which would have been thrown on them if they had kept their shops open when those of others were closed. Hence the dealers followed one another, and general closing movements took place, which were only got over when the supply had accumulated a little and the alarmed public were glad to accept greatly enhanced rates.

By the 6th November the price of common rice in Cuttack was 8 local seers (105 tolas) per rupee. Prices steadily increased week by week, and it became apparent that absolute famine must ensue. The irrigation works, by providing employment for thousands of labourers, who were paid partly in money and partly in rice, rendered the distress later in Cuttack than in the neighbouring districts; but even in Cuttack town the official returns of the 12th February showed the price of rice at from 9 to 7 standard seers per rupee. In April the district began to suffer from actual famine and starvation. The pressure was yet less in the town than elsewhere; but prices reached $6\frac{1}{2}$ to $5\frac{1}{2}$ seers per rupee, at which rate the people could not long survive, and starving objects began to appear. Several private charities were opened, and there was an old established public charity; but it was not till the end of the month that the Relief Committee commenced regular operations. The distress was aggravated by the failure of the Irrigation Company's rice, which now came to an end; their funds were at the

time scant; they did not import more rice till June; and, meantime, food becoming scarcer and scarcer, the relief afforded by their works was greatly diminished.

It is quite clear that by May there was great starvation and suffering and considerable mortality in the district, though the mortality in the town was not excessive and there were not the famine scenes witnessed in Balasore. Prices went up to 5 and 4 seers in the latter part of the month, or to about seven times the average price of food; and continuing to rise still higher than this, they did not materially fall during the following three months. From the middle of June to the middle of July, the price in the town of Cuttack (when rice could be bought at all) was from $4\frac{1}{2}$ to $3\frac{1}{2}$ standard seers per rupee, or eight times the average price, and in most places rice was not to be obtained at all. The popular urban confidence in stocks yet remaining in hand only ended in more sudden and complete exhaustion and ruin; and in respect of high prices, Cuttack suffered more than any other district station. Rice was dearer for a short time at Balasore, but the most extreme pressure of prices lasted for a longer period at Cuttack than at either Balasore or Puri. Government relief works were not opened till late in the famine; but the works of the Irrigation Company employed 9,290 persons on an average in each of the six months ending in June. In January when rice was procurable, the numbers were at their highest (14,666); and from that month till June, employment being freely offered, and more and more needed, the decrease in numbers was solely due to the want of rice to feed the labourers. In the rainy months July and August the work was for the most part stopped by the season.

By the end of May, the district was discovered to be in a terrible state of famine. On the 27th May, the Commissioner returning from a tour in the Tributary States found the troops and Government establishments on the point of starvation; and on the 26th he sent a telegram begging Government to import rice for the use of the troops and for the jails, to feed labourers on relief works, and to supply food for the starving. Rice, he announced, was procurable with the utmost difficulty, and then only in insufficient quantities, at $4\frac{1}{2}$ seers per rupee; there were only one day's rations in store for the troops, crime was increasing daily; and all public works and relief works were stopped for want

of food. A cargo of 3,000 bags of rice was at once despatched to False Point, but great difficulty and delay was experienced in landing and transporting it; and the greater part of the cargo was not received in Cuttack till early in July. After this, several ships loaded with rice arrived in quick succession, and by November about 10,000 tons of food had been imported. Meanwhile, however, the mortality caused by starvation or by disease, directly or indirectly connected with starvation, want and bad food, was very great. Money was spurned as worthless, and prices were constantly merely nominal. Where rice was to be bought at all, as at Cuttack, it reached the rate of five, four and even three seers to the rupee, but in the interior still higher rates prevailed, even to one seer per rupee. Famishing crowds gathered at the feeding places, and as one officer wrote, "for miles round you heard their yell for food".

In July some centres for the distribution of cooked food were established in the interior, more were established in August, and in September nearly the full number (43) of feeding places were in operation. Before this, however, the sufferings of the people had been increased by the inundation of all the low-lying lands. The deltaic rivers, swollen by heavy rain, rose to an almost unprecedented height; the embankments were topped and breached in all directions, and the whole of the low-lying country was flooded by an inundation which lasted for an unusual time. The mortality reached its culminating point in the second week of August, during the heavy rains which preceded and caused these floods. The people were then in the lowest stage of exhaustion; the homeless poor looked in vain for shelter from the rain that penetrated everywhere; the emaciated crowds collected at the feeding stations had no sufficient shelter, and the cold and wet killed them in fearful numbers. The known deaths from diarrhoea and dysentery and other similar diseases increased greatly, and the unknown deaths must have been still more numerous, for persons could not reach *annachhatras* or relief depots, to which alone they looked for support. In most of the low-lying lands, the *biali* or early rice crop, which would have been reaped in another week or fortnight, was almost entirely destroyed, and the young cold-weather crops suffered much from protracted immersion. Although new relief centres were opened, yet in several cases it was found quite impossible to supply those already opened with rice, owing

to the boats from False Point being unable to make way against the powerful current that then came down; and at several centres operations were altogether suspended. The result of this was a great aggravation of the already existing distress; for those who were congregated at the centres found, when the stock of rice ran out, that they were cut off by the floods from other aid, and many died from sheer starvation. In September some relief was afforded not only by the greater extension and better supply of the feeding centres and sale depots, but also by the ripening of the small early crop of rice in tracts which had escaped the flood. At best, however, the distress was still but a degree less than before; rice still sold at six, and even five seers for the rupee; and it is questionable whether the results of previous suffering, and the effect of unaccustomed food on those who were much reduced, did not cause the mortality to be almost as great as ever. Many, who had lived so long, died when they received the meals to which they had long been strangers. Up to the end of September, the quantity of rice imported by ship at False Point was as much as could be utilized with the means at the disposal of the local officers and of the Relief Committee. In October, however, the supply of imported rice was almost entirely stopped, owing apparently to misunderstandings between the local officers and the Board of Revenue; only one ship brought a cargo of rice, which however afforded most opportune relief. The sales of rice to the famished people had to be put an end to for want of grain; but gratuitous relief was not checked, as the stock in hand happily sufficed to maintain (though with great difficulty) the feeding centres; and though in some parts of the country the stoppage of sales was very much felt, in others the market was somewhat eased in the course of October when some new grain became available. In November the new crop began to come into the market in considerable quantities, and then the general famine may be said to have come to an end. The people returned to their avocations, leaving only the emaciated, the orphans and the widows. Considerable distress, however, still existed in the unfortunate tracts which had suffered a second calamity by the floods of August, particularly in the Kendrapara subdivision; and in these, relief operations were continued for some time longer.

Owing to the protection afforded by the irrigation works, Scarcity of no famine has occurred since 1866, though there was some 1896-97.

scarcity in 1897 in consequence of a flood of great height and of unprecedented duration followed by short rain in September and an almost complete failure of the monsoon in October 1896. All the great rivers rose almost simultaneously to nearly the highest level on record, overflowing their banks or breaching the embankments. They submerged the low lands, which remained waterlogged for more than a month owing to the long duration of the rise in the rivers; and not only was the crop ruined, but much land was thrown out of cultivation by the deposit of sand. On the subsidence of the floods the cultivators replanted as soon as possible, but the next sowings were sacrificed to drought as the old ones had been to flood. The drought was also of long duration, the rains having ceased at the end of September; in some places the winter rice crop, which is the mainstay of the district, failed entirely, and in others the harvest was very poor. In the event the outturn of rice was estimated at 7 to 8 annas of a normal crop, and allowing for the stocks in hand and the outturn of the *rabi* crops, the deficit to be supplied by imports was put at 10 lakhs of maunds. The affected area was 1,360 square miles, or more than one-third of the district, with a population of 624,840 souls but distress existed more or less throughout the whole district, and relief had to be given in all the subdivisions from the middle of March to the end of September 1897. The district board started relief measures, but it was soon discovered that the circumstances were not such as to justify expenditure by the district board or by Government, and the grants already made by the board was thenceforward replaced by contribution from the Indian Charitable Relief fund and from the Court of Wards fund in Kanika and Kujang. Relief was given gratuitously in the shape of grain and money-doles, except in the Kuhunda-Jaipur circle, where arrangements were made to take from the able-bodied recipients of relief such light work as paddy-husking, rope-making, cotton-spinning and cloth-weaving. In the end, though there was considerable local distress, very little relief was found necessary, and the total expenditure amounted to only Rs. 18,718.

FLOODS.

During last century, Cuttack frequently suffered from inundation, and though defensive works in the shape of embankments along the rivers prevented the devastation of the district, a large proportion of the immense volume of water concentrated on the delta periodically spread over the

country. Since 1830 floods of a serious character have occurred no less than 28 times, viz. in 1831, 1834, 1848, 1851, 1855, 1856, 1857, 1862, 1866, 1868, 1872, 1874, 1877, 1879, 1880, 1881, 1885, 1892, 1894, 1895, 1896, 1900, 1907, 1911, 1913, 1920, 1926 and 1927. It would be a mistake, however, to suppose that the floods are always destructive. They undoubtedly do harm in many ways, and the greatest of them have caused widespread havoc and destruction; but provided that they are not of long continuance or of great height, and that they come pretty early in the season, these inundations are productive of almost as much good as harm, as they are usually followed by excellent harvests. In many places the receding waters leave a fertilizing deposit of silt, which renews the productive powers of the soil and is of much benefit to the crops; and even the highest floods are of service, as their scouring action results in the clearance of silt on a large scale, and thus increases the capacity of the discharge of the various channels. It is only when their duration or height is extraordinary, or when they occur so late as to render resowing impossible, that very serious and widespread damage is done.

With the possible exception of the flood of 1834, the highest flood of which we have any authentic record is that of 1855. which occurred in July 1855, when the Mahanadi rose to an enormous height and the maximum reading (127.13) on the Lalbagh gauge was recorded. The embankments were breached in no less than 1,365 places, and besides the terrible losses sustained by the people in the submerged tract, 52 square miles were reported as being permanently left waste for fear of inundation. Fortunately, however, the flood fell as quickly as it rose, and though it submerged nearly the whole district, it did not cause nearly as much damage as a protracted flood would have done.

So far as the effect on cultivation is concerned, the duration of a flood is almost of more importance than the maximum rise, and the period of the season at which it may occur is of even more importance. For this reason, the flood of 1866 was more disastrous than that of 1855, as though it was not so high, it continued much longer; and to add to the distress, it came at the critical period of the year when the people were relying on the early rice crop to mitigate the sufferings caused by famine. This inundation broke through the Government embankments in 413 places and of the 35

embanked rivers, not one was uninjured. Out of 90 parganas only six escaped from the flood; 642 square miles were submerged during a period varying from 3 to 60 days, the depth of water being from 3 to 15 feet; and a vast population of nearly 700,000 people are said to have been thrust out of their homes. All the crops were destroyed in the parts affected most seriously; property which had escaped the famine was carried away or destroyed, absolutely nothing was saved, and what the drought had spared was engulfed in the wide vortex of water.

**Flood of
1872.**

The next great flood was that of 1872, which was very nearly though not quite as high as the flood of 1855. In Cuttack 1,135 square miles were inundated, and in Puri 1,070 square miles; of these 2,205 square miles, about 600 were under water for 14 to 17 days, and the rest from 7 to 10 days. Cuttack town was cut off from all communication with the surrounding country and was in imminent danger, being only saved by the energy of the local officers. The canals and embankments were seriously injured, and the country was a vast sea of water stretching from Cuttack to the coast, dotted here and there with a few village sites, where the people and cattle found a temporary shelter and huddled together in the greatest distress. Fortunately this flood occurred early in the season, in the first week of July, and as the subsequent season was favourable, a good crop was obtained from most of the land inundated, and no marked distress was caused.

**Flood of
1892.**

In more recent years the most serious floods have been those which occurred in 1892, 1896 and 1920, the first of which was remarkable for its intensity, and the second for its long duration. The flood of 1892 was due to the Mahanadi being swollen to a great height by heavy rainfall, the level at Naraj on the 26th July being 92.10 and at Bellevue on the Katjuri 88.30. The level above which the Mahanadi may be considered to be in high flood is 88.00 at Naraj, and the river was above this level for only 5 days as against 8 days in 1872. Consequently the injury to the crops generally was not very serious; and though the embankments in the Puri district were breached in all directions, the damage done in this district was not nearly as great. The Kendrapara canal was, however, breached in the 19th and 20th miles, and the Kendrapara Extension canal from Marsaghai to Jambu was also overtopped and breached in many places.

In the flood of 1896 the Brahmani and Baitarni as well as the Mahanadi rose to a great height almost simultaneously, but the main feature of the flood was its long duration, which exceeded that of all the floods of which we have any record. For fifteen days, i.e. from the 24th July to the 7th August, the Mahanadi was continuously above the level of 88.00 at Naraj except for a few hours on the 2nd August; and on the 25th July it attained its greatest height, 92.10, or the same height as was reached by the floods of 1872 and 1892. The embankments were breached in numerous places, and the Kendrapara Extension canal, standing out like the bank of an inland sea, suffered much from the erosion of the waves breaking on it, and was again wrecked. In almost all the parts unprotected by embankments the heavy floods destroyed the *bhadoi* and winter rice crops, and extensive tracts lay under deep water for many days. Some lost their lives and property, and there was considerable distress in all the country open to the ravages of the flood. Flood of 1896.

In 1907 a phenomenal rainfall of 32.44 inches in August brought out the Baitarni, Brahmani and Mahanadi simultaneously in flood. The gauge reading at Jenapur on the Brahmani reached 69.70 and all unprotected parts of the districts were inundated. The resultant scarcity would not, however, have been so serious but for the fact that, as so frequently happens, the latter rains failed. In October there was only .76 of rain, and the crops planted after the flood withered in the ground. Flood of 1907.

The flood in August 1911 was confined to the Mahanadi and Katjuri. At Naraj the highest reading was .80 below the record of 1896, at Bellevue 83.30 equalling the record of 1872, but further down the Katjuri all records were broken. The high flood only lasted 5 days and little damage was done as the *biali* rice and *mandia* were replaced by later crops. The principal *sarad* crop actually benefited. Flood of 1911.

At the end of July and beginning of August 1913 floods in the Baitarni and Brahmani did considerable damage to embankments. The Bengal-Nagpur Railway embankment and Ranges II and III of the High Level canal were all breached in several places. At Jenapur the record reading of 70.00 was recorded, and on the Baitarni it was 69.75 or two feet above the previous record. Both embankments of the Flood of 1913.

Baitarni were badly breached, and 300 feet of the Burah weir were carried away. The flood was remarkable for its intensity rather than its duration, and the damage to crops was mostly reparable, with the assistance of *takavi* loans.

Flood of
1920.

August 1920 produced another disastrous flood, which affected all rivers and rose to new record heights in the Brahmani and Kharsua, breaching the embankments in many places. The Aul ring bund gave way, and an area of nearly 80 square miles within it was laid waste. This bund, erected in the latter part of the 18th century and preventing as it did the deposit of silt upon the area within it, had in this way created a basin lower by several feet in places than the surrounding country, and this remained water-logged long after the floods had subsided.

Flood of
1926.

In 1926 all three rivers were in simultaneous flood on three separate occasions. A very high flood in the third week of August was followed by a moderate flood early in September, and again by a very high flood in the third week of September. The monsoon had been late, and the crops, only recently transplanted, were in no condition to put up any kind of fight for survival. The levels in most of the rivers were little, if any, below the records of 1920, and almost all the embankments were excessively damaged. As has so frequently happened, the floods were followed by a failure of the later rains, and recovery being therefore impossible, there was considerable distress and relief measures were necessary. Kendrapara and Jajpur subdivisions were the worst sufferers, the crops of over 60,000 acres in each being damaged or destroyed.

Flood of
1927.

Before the affected areas could recover from this disaster further high floods occurred in the Baitarni and Brahmani in July and August 1927, due to a fall of 18 inches of rain in two days in an already saturated catchment area. Both embankments of the Baitarni were breached in many places, the head works of the canals were overtopped, and 11 miles of the Bengal-Nagpur Railway destroyed. The Orissa Trunk Road was also breached. Most of the damage was, however, done in the district of Balasore and relatively little in Cuttack.

Measures to
reduce
flooding.

During the first century of British rule the flood of 1855 stood out as an unprecedented and unequalled catastrophe. When, therefore, in the 20th century, devastating floods began

to succeed each other at short intervals equalling or outstripping the records of 1855, the question naturally arose whether the rivers of Orissa were deteriorating owing to the works of man, and in particular the canal embankments, the Trunk Road and the Bengal-Nagpur Railway line. In 1924, as the result of a resolution of the Legislative Council, a committee of officials and non-officials was appointed to consider the whole question of floods in Orissa and the means to be adopted to minimize their effects. Briefly the Committee found that floods could not be prevented, for the reason that the rivers at certain times brought down into the plains twice the amount of water that the river channels were capable of discharging. The protection of certain areas by the canal embankments had certainly increased the quantity and the force of the water that inundated the unprotected areas, and also lengthened the period of inundation, but the abandonment of this protection, in the shadow of which dense populations had grown up in the protected areas, was unthinkable, and would merely result in plunging all into a common misery. There was no reason to hold that the canal works had to any great extent affected the regime of the rivers, and the real cause of the greater intensity of recent floods was the progressive deforestation of the hills in the catchment areas. In forest-clad areas the rainfall is to a great extent absorbed by the soil and foliage, and percolates only slowly to the rivers. When the forest is removed, the soil exposed to the direct effects of the weather is rapidly eroded, and the bare rock then remaining allows the entire rainfall to descend immediately into the river valleys. Mitigation could be obtained by constructing large retarding reservoirs to regulate the flow of water to the plains, but the cost would be prohibitive.

"The only results which we can hope to attain" the Committee concluded "are a reduction of the period of flooding by helping the water to drain off rapidly. It is proposed to effect the first of these objects by relieving the rivers of the surface water as soon as they rise to danger point by means of flood escapes at suitable places on all the embankments. The effect will be not only to relieve the river when it is in high flood, but also to produce a deposit of silt on land which ordinarily does not get the benefit of it. These escapes will act both as sluices and escapes. The sluice will act when the river is below danger point, and will enable a comparatively small quantity of silt-laden water to pass on to the protected

land. As soon as the river rose to danger point the sluice gate would be closed and the surface water would pass over the crest of the escape."

After the serious floods of 1926 and 1927 the local Government decided to have the question examined by a committee of experts consisting of Mr. C. Addams Williams, C.I.E., Chief Engineer to the Government of Bengal, Rai Bahadur Bishun Svarup, late Chief Engineer to the Government of Bihar and Orissa, and Mr. D. G. Harris, C.I.E., Consulting Engineer to the Government of India; and the Committee reported in 1928.

The following are extracts from its report:—

"The three rivers in question (the Baitarni, Brahmani and Mahanadi) enter the Orissa plains from the hills of the Feudatory States, emerging with high velocities, and, during the monsoon, charged with large quantities of silt. On entering the plains this velocity is checked, and being reduced to a point where the water can no longer carry the whole of the matter suspended in it, silt is deposited in the river bed. As the bed rises, the flood levels also rise; the water spills over either bank, and by depositing silt on the land in the immediate vicinity, builds up a ridge on the summit of which the river flows. This process continues until a position of unstable equilibrium is reached, when the river bursts its bank and throws out a branch into the valley which has been formed between it and the next river ridge, which valley is then similarly raised by silt deposit until, in due course, the process is repeated. It is thus that the typical features of a deltaic country come into existence, the rivers running on ridges with low lands between them, constantly overflowing their banks, and casting off a net-work of branches until, in many cases, it is only convention which decides which branch, if any, shall maintain the name of the parent stream."

"It must be clearly grasped that in a deltaic area there must be flooding. It is nature's method of land formation and any efforts to prevent it are doomed to failure from the outset."

After pointing out two other factors affecting the Orissa delta, namely the heading up of water in the Bay of Bengal during the south-west monsoon, which very often raises the sea-level at the mouths of the rivers 2 or 3 feet and considerably more during storms; and the steady northward littoral sand drift which tends to form bars across the mouths of the rivers, the report goes on to say :—

“ We have come to the conclusion that the problem which has arisen in Orissa is in the main due to the efforts that have been made towards its protection. Every square mile of country from which spill water is excluded means the intensification of floods elsewhere; every embankment means the heading up of water on someone else's land..... The problem in Orissa is not how to prevent floods, but how to pass them as quickly as possible to the sea, and the solution lies in removing all obstacles which militate against this result. Unfortunately the fact that the delta is inhabited prevents this policy being pursued in its entirety.”

“ Orissa is haunted by two spectres, flood and drought, and of the two the latter is the more terrible. But for the existence of the fully protected area the threat of scarcity would loom much larger in Orissa than it does at present. A large area of this nature, certain of its crops and producing a large surplus beyond its own immediate needs, provides an insurance against calamity to the country as a whole which is of inestimable value, and which is not, we consider, too dearly purchased even at the price of greater flooding over the remaining area.”

They recommended, therefore, leaving the protected area alone for the present, and gradually removing all embankments in the semi-protected areas lower down, beginning at the end nearest the sea. These embankments did not in any case afford protection against anything except the most moderate floods, and their combined effect was to delay the passage of the water, so that a flood which might have passed off harmlessly very often remained long enough to do serious damage to the crops. No new embankment should be allowed

to be built, and reclamation of land for cultivation in the tidal portions of the rivers should be entirely stopped. Another important recommendation was the separation of the two functions of maintenance of irrigation and protection from floods, hitherto performed by the same set of Irrigation Department officers, though, as the Committee pointed out, their interests must often be in conflict. The Orissa Irrigation circle was accordingly rearranged, all irrigation works constituting one division, and two embankment divisions being created to take charge of all embankments, rivers and drainage channels. These latter are responsible for the survey of all existing private embankments, the scientific gauging of rainfall, river flow and tides, and the compilation of flood reports and records, with a view to the working out in detail and gradual putting into effect of the Committee's recommendations.

A table showing the highest flood levels recorded up to 1931 is appended.

Highest recorded floods.

			Date.		Height.
<i>Mahanadi—</i>					
Naraj	.. {	above weir	.. 29th July 1855	..	93.33 Feet.
		below	.. 26th July 1892	..	92.10 "
Jobra	.. {	above	.. 25th July 1892	..	75.95 "
		below	.. 23rd July 1892	..	74.65 "
<i>Katjuri—</i>					
Bellevue	..		.. 25th July 1892	..	83.30 "
<i>Birupa—</i>					
Jagatpur	.. {	above	.. 17th August 1911	..	72.00 "
		below	.. 17th August 1911	..	71.60 "
<i>Brahmani—</i>					
Jenapur	.. {	above	.. 22nd July 1920	..	71.10 "
		below	.. 22nd July 1920	..	70.00 "
<i>Patiya—</i>					
Jakodia	.. {	above	.. 22nd July 1920	..	72.30 "
		below	.. 21st August 1907	..	69.65 "
<i>Baitarni—</i>					
Akhuapada	.. {	above	.. 29th July 1927	..	69.20 "
		below	.. 29th July 1927	..	68.60 "
<i>Burah—</i>					
Roria	.. {	above	.. 29th July 1927	..	71.00 "
		below	.. 1st August 1913	..	64.06 "
<i>Salindi—</i>					
Randia	..		.. 12th September 1887		59.72 "

The most terrible cyclone from which the district has ever CYCLONES. suffered was the False Point cyclone of 1885, the memory of Cyclone of 1885. which still endures among the people. It presented two peculiar features, as it occurred during the monsoon months and was of very narrow area, though of unusual severity. The cyclone burst upon the coast in the early morning of the 22nd September 1885, the barometer falling to 27.135" at False Point Light House, a reading unprecedented at the level of the sea. It was accompanied by a storm-wave rising to a height of about 22 feet above mean sea-level, which at once submerged the village of Jambu at the terminus of the Kendrapara canal to the north-west of False Point, and then rolled on in a north-westerly direction till it lost itself in the Brahmani river. The storm was most keenly felt in the Jajpur and Kendrapara subdivisions. In the former subdivision no less than 2,447 villages were affected and nearly 50,000 houses were destroyed; about 300 human lives were lost by falling trees, walls and homesteads, and 2,973 cattle were killed. The Executive Engineer's house at Akhuapada was entirely wrecked, the roof bodily carried away, and some of the masonry pillars destroyed; the Europeans (one a lady), who were in the house at the time, were driven outside, and were for some hours exposed to the violence of wind and rain. In the Kendrapara subdivision about 5,000 persons were drowned and 10,000 cattle were lost, 7,000 of these belonging to the Kaldip and Karara parganas. These parganas included 290 villages with a population of about 26,000 persons, and suffered more severely than any other parts of the district, a total area of about 250 square miles being submerged. Eleven villages were completely swept away, every man, woman and child being drowned by the storm-wave, and all trace of the houses being washed away; while about 150 more villages were levelled to the ground, though a considerable part of the population managed to escape. The land lying between Rajnagar and the sea-face, which before the cyclone was perhaps one of the best rice-growing tracts of the Kanika estate, was converted into a brackish waste; and in Kaldip all, and in Karara three-fourths of the crops, were completely destroyed. By far the greatest havoc, however, was caused on the sea-face; here the storm-wave, sweeping over False Point Harbour, knocked down all the houses before it, and completely submerged Jambu as it rolled on in an unbroken wave over Kaldip and Karara. The effect of this wave was

suddenly to create a sufficient depth of water all over the harbour to float large steamers over shoals where ordinarily there is a depth of only a few feet of water. The sudden fall of the water landed the ships and steamers which had drifted from their moorings on the shoals; while the cargo barges were deposited in the midst of the jungles and in all the most extraordinary places, the boatmen having no command whatever over their boats, and being unable to distinguish, amidst the wild waste of water, the creeks from the submerged land. At Jambu itself, out of a population of 130 souls in the village, only about a dozen were saved; the village site, when first visited, was covered with the corpses of men, women and children, while the dead bodies of cattle and deer were floating in great numbers in the creek before the village. Between Jambu and the Brahmani, all along the Hansua creek, the scene was one of perfect desolation, with trees uprooted and houses crushed into a confused mass, and with hardly any sign of animal or human life whatever.

Immediately after the disaster the Commissioner and officers of the district staff visited the devastated country and distributed food to the survivors. Relief measures were at once started, depots being established at Hansua and Rajnagar, at which charitable relief was administered to about 8,000 persons daily. A grant of Rs. 20,000 was made by Government for this purpose, and another grant of the same amount was sanctioned out of the funds of the Kanika Wards estate for charitable donations to the raiyats. The villages which were not utterly destroyed recovered from the effects of the storm with remarkable rapidity. Trade was for a time suspended, whilst the inhabitants set to work to repair their homesteads; but within a short time few vestiges of the destructive character of the storm remained. In many of the villages, however, some of the distinctive castes were completely exterminated; so that there are now several *bastis* in which there are no members of those castes whose presence and services are indispensable to a village community.

Cyclone of
1890.

The last disaster of this kind which has visited the district was in 1890, when a storm-wave affected a considerable part of the Kujang estate, which, since the tidal wave of 1885 had been more or less subject to the inrush of sea-water every year. Matters, however, reached a climax in June 1890, when another wave passed over this portion of the estate,

completely destroying the crops in a tract extending from the Keabag to Gagua. Here the standing crops were swept away, all the tanks and wells were filled with brackish water, and the supply of food-grain was all but exhausted. Four months after this tidal wave, it was reported by the Manager of the estate that nearly nine-tenths of the people in the affected tracts had no grain in their houses, and had no means of purchasing it. The severity of the distress was all the more keenly felt, as the people had already sustained grave losses in the previous year, when rinderpest carried away more than 75 per cent of their cattle.

CHAPTER VIII.

RENTS, WAGES AND PRICES.

CASH RENTS. WITH the exception of about 2 per cent, all the cultivated lands in the district are held on cash rents. The first regular settlement was made in 1837, and was based on a regular survey which extracted the total areas of cultivated, culturable and waste land in the village or other unit; the details were then filled in by a field to field enquiry, and rents fixed—at least as far as *thani* raiyats were concerned—in consideration of the class of soil and nature of crops grown. The settlement was for 30 years, until 1867, but the occurrence of the disastrous famine in 1866 rendered it inadvisable to revise the settlement in 1867, and its currency was extended for a further 30 years—until 1897.

*Thani and
Pahi
raiylats.*

At the settlement of 1837 the average rent of *thani* raiyats, i.e. resident cultivators with a customary right of occupancy, who held 21.5 per cent of the assessed area, was Rs. 2-13-3 per acre, while the incidence of the rents of the *pahi* or non-resident raiylats, who in most cases were practically tenants-at-will was Rs. 1-14-6. *Thani* rents were of course unalterable during the period of the settlement, but those of *pahi* raiylats, under the influence of competition, underwent considerable variation during the sixty years between 1837 and 1897.

**Settlement
of 1897.**

At the inception of the new settlement proceedings, therefore, it was not found possible to deduce rates of rent prevailing for particular classes of soil, or uniform rates for lands of similar quality, and the general basis adopted was that *pahi* rents, being competition rents, should usually be presumed to be fair. *Thani* rents, where they were found to be less than the village *pahi* rents, were enhanced by not more than half the percentage of difference between the two. It is a significant fact, as showing at what high rates the rents of *thani* raiylats had been fixed at the earlier settlement, that the general incidence of the rents of *pahi* raiylats had not, even in the course of 60 years, risen to that shown by the *thani* rents fixed in 1837. It is to some extent true that these privileged tenancies frequently included the best lands of the village, but

the belief that they were over-assessed is borne out by the great diminution in the area held by *thani* tenants in spite of the valuable privileges conferred by *thani* status. In the event, the average incidence of the rent settled for *thani* holdings was Rs. 2-14-5 per acre, and for *pahi* Rs. 2-13-7 per acre.

At the time of the 1927 settlement, thanks to the accrual of occupancy and settled rights, conferred or confirmed by the Bengal Tenancy Act, which had been applied to the district in 1891, the distinction between *thani* and *pahi* raiyats had practically disappeared, and the general principle adopted was to enhance all raiyati rents at a uniform rate based solely on the rise in prices since the 1897 settlement. There had been a revisional settlement in some parts in 1911, but this had been concerned rather with the correction of the record-of-rights than with the revision of rents. The average price of rice during the decennial period 1887—1896 was 19 seers 9 chittaks to the rupee, and during the period 1918—1927, 9 seers 4 chittaks to the rupee, a rise of approximately 100 per cent. In the same period the average market value of raiyati land had risen from Rs. 36 an acre to Rs. 103 an acre, or nearly 200 per cent. Although on these figures an enhancement of rents by eleven or twelve annas in the rupee would have been admissible, the enhancement was, however, in general limited to four annas in the rupee, and the average incidence of rents as a result of the settlement rose to Rs. 3-6-6 an acre.

Orissa has a rich variety of sub-proprietors, tenure-holders and raiyats, but as these have now all been approximated to the pattern approved by the Tenancy Act, the distinctions, though tenaciously retained by the holders, are of little more than historical interest. Among those classes whose rents have been settled may be mentioned *jamabandi kharidadars*, *baziaftidars*, *tankidars* and *chandinadars*.

Jamabandi kharidadars are, in theory at least, the holders of areas of waste land and jungle transferred to them at a price for the purpose of reclamation and the foundation of villages. The areas were supposed to be small and valueless, but under the lax administration before the British conquest fraud was often practised, and some of the grants were valuable. At the settlement of 1897 they were treated as subordinate proprietors, their rents being calculated at a certain percentage of the assets of their tenures; but at the 1897 settlement they were treated

Settlement
of 1927.

Other
classes of
tenants.

*Jamabandi
kharidadars.*

as tenure-holders under the Bengal Tenancy Act, and their rents settled accordingly, a percentage equal to that granted to them at the previous settlement (20 to 30 per cent of the full rent) being deducted from the gross assets of each tenure. The incidence of the settled rate per acre was Rs. 1-8-0, the enhancement being 62 per cent. The rents, however, were still below the general level, and at the 1927 settlement they were substantially enhanced, subject to the general limit that they should not exceed two-thirds of the sum obtained by multiplying the cultivated area by the village rate for occupancy raiyats.

Basiaftidars.

Baziaftidars are the holders of lands found, on the examination of claims at the first settlement, to be held rent-free on invalid grants, and consequently resumed. *Kamil baziaftidars* were assessed at full rates, and *nisfi baziaftidars* at half rates. At the 1897 settlement both these classes were dealt with as raiyats whose special privileges had expired with the last settlement, but in consideration of the very low rents at which they were holding, and to prevent the hardship which would have been caused by too sudden an enhancement, they were eventually assessed to rents much below those paid by ordinary raiyats. The incidence of the settled rent per acre in the case of *nisfi-baziaftidars* was Rs. 1-1-5, and of *kamil baziaftidars* Rs. 1-5-4, the enhancements being 189 and 55 per cent respectively. The special status of *baziaftidars* was recognized in section 3(2) and (6) of the Orissa Tenancy Act, and at the 1927 settlement it was decided that the comparative limit of enhancement fixed at the previous settlement should be maintained, and that in no case should the rent be increased so as to exceed two-thirds of the sum found by multiplying the cultivated area by the new village rate. Within that limit the rents were ordinarily enhanced by 50 per cent only. There was thus a double limit on the enhancement of these privileged rents, and in the result the average incidence is Rs. 1-13-0 per acre, which compares very favourably with the rate of Rs. 3-6-6 per acre paid by ordinary raiyats.

Tankidars.

Tankidars are the holders of small areas permanently assessed at a quit rent which averaged annas 3-2 at the 1837 settlement. These rents were not disturbed at the subsequent settlements, but any excess lands found to be held by the *tankidars* were assessed to the full rent, and settled with them as raiyati holdings.

An ordinary raiyat's homestead is part of his holding and *Chandina-* not assessed separately to rent. There are, however, in every *dars*. village certain non-agriculturists, such as shop-keepers, artizans, and landless labourers who pay a rent only for their houses, and these are known as *chandinadars*. The average incidence of *chandina* rents was Rs. 3-15-10 at the settlement of 1837, and though there was no general enhancement at the settlement of 1897, the assessment of excess areas at special rates raised the general incidence to Rs. 5-2-0. At the 1927 settlement it was recognized that these tenants had shared in the general increase in prosperity due to the rise in prices and wages, and could reasonably be subjected to the same scale of enhancement as the ordinary agricultural tenants. In certain large bazars and semi-urban areas, where the lands had acquired a high letting value, special enhancements were given. The general effect was to raise the incidence of these rents to Rs. 6-6-3 an acre.

Produce rents are relatively unimportant in Cuttack where **PRODUCE** only 2 per cent of the cultivated land is held on produce rent. **RENTS.** The commonest form is that known as *dhulibhag* (literally "sharing of the dust"), which implies an equal division of the by-products as well as the grain. Under this system the entire cost of cultivation is borne by the tenant, and when the crop comes to maturity, it is reaped in the presence of the landlord's agents, and is carried by the tenant to the threshing floor, where an equal division is made in the presence of both parties. Sometimes, however, instead of the crop being actually divided, it is appraised on the ground, and half the estimated value is taken by the landlord as his share. A less common form of produce rent is that designated *phalbhag*, i.e. a division of fruit or grain only, the straw and other by-products being retained by the cultivator.

Another form is that known as *sanja* (contract), a term which is applied to the payment of a fixed quantity of the produce. The only other class of produce rent calling for mention is named *panidhan*, i.e. an arrangement by which a portion of a cash rent is paid in kind, e.g. a tenant with a nominal rent of four rupees may have to pay three rupees in cash and one rupee in grain. The landlord fixes the rate, so that the tenant generally has to give more grain than would sell for one rupee in the open market.

Of these systems of rent payment the *dhulibhag* is fairer than the *sanja*, for under the latter the amount to be paid is not varied according to the season, and therefore presses more heavily on the raiyat in bad years, when prices are high; under the former system the demand, measured in grain, is less in a bad year than in a good. The amount of *sanja* rent is generally about 6 maunds of paddy per acre; the amount of *dhulibhag* rent would theoretically be about the same, but in practice is probably less, mainly because the raiyat pays less attention to a field of which he gets only half the produce, than to a field for which he pays a fixed rent.

Though produce rents are not common as far as settled raiyats are concerned, a considerable area is held by under-raiyats on such rents, and it must be admitted that much of the land which is claimed to be, and has been recorded as, in the direct cultivation of the landlords is really cultivated by tenants in this way. The idea that a cultivator can acquire a right of occupancy in land which he cultivates on a produce rent is really foreign to the custom of the country, and many will not claim such a right even when it is explained to them that they legally possess it.

WAGES.

The table on the margin shows the movements of wages for the principal classes of labourers since the beginning of the present century. It is of interest to compare these wages with those current in 1805 when sawyers, stone-cutters and tailors got Rs. 4, bricklayers, blacksmiths, carpenters, *gharamis* (thatchers) and syces Rs. 3; grass-cutters, sweepers and other menial servants Rs. 2 a month.

		1910.	1920.	1930.	
		Rs. a. p.	Rs. a. p.	Rs. a. p.	
Blacksmith	..	{ 0 8 0 to 1 0 0	{ 0 10 0 to 1 2 0	{ 0 12 0 to 1 4 0	
Mason	..	{ 0 8 0 to 0 12 0	{ 0 10 0 to 1 0 0	{ 0 12 0 to 1 4 0	
Carpenter	..	{ 0 8 0 to 0 12 0	{ 0 10 0 to 1 0 0	{ 0 12 0 to 1 4 0	
Gharami	..	{ 0 3 6 to 0 4 0	{ 0 4 0 to 0 6 0	{ 0 5 0 to 0 8 0	
Unskilled labourer	..	0 3 0	0 4 0	0 5 0	
Ploughman	..	0 3 0	0 4 0	0 5 0	

The figures in the above table relate to labourers in the towns. In the rural areas the village artisans and labourers are still remunerated for the most part rather in kind than in cash. The village carpenter, blacksmith, washerman and barber are regarded as servants of the community, and generally hold small parcels of service lands known as *dessheta jagir*, which are free of assessment to Government revenue, and are hereditary as long as the services connected with them continue to be performed. In addition they receive an annual contribution from each household, which is generally about 15 seers of paddy per plough in the case of the blacksmith and carpenter, and the same amount per head in the case of the washerman and barber. The vast majority of agricultural labourers are paid in kind. Roughly they fall into two classes. The *haliyas* or *kothiyas* are permanently employed, and are generally bound to their masters by a nexus of debt which they must discharge before they can leave their service. The *haliya* receives about Rs. 5 to Rs. 10 a year in cash, and two to three annas a day in cash, or $2\frac{1}{4}$ to 3 seers of paddy, on the days on which he works. If he does not sleep on the premises, he is given a small plot on which to build a house, and generally one-fifth to a quarter of an acre of land which he is allowed to cultivate with seeds and ploughs provided by his master. He is also allowed from the harvest 4 to 8 sheaves of paddy for every acre ploughed, and 8 to 12 for every acre reaped. The women and children add to the family earnings by casual labour in the fields. The position of a *haliya* is by no means servile, as new masters are readily available, and he can easily free himself if he wishes by getting the new master to discharge his debt to the old. The *muliyas*, or casual labourers, also are generally paid in kind, the daily wage being sufficient paddy to yield $2\frac{1}{2}$ to 3 seers of rice. When paid in cash the usual wage is about 5 annas a day. Some of them have a little land of their own.

Whereas cash wages, particularly in the towns, have increased enormously in the last 100 years, wages in kind, measured in terms of grain, have remained practically stationary. To unskilled workers, however, who can rarely hope to earn more than a bare subsistence wage, the independence of price fluctuations which the system of payment in kind affords has its advantages, and the majority of them prefer it.

PRICES.

			The enormous rise in the price of rice, the staple food-stuff of the country, can be gathered from the figures of the decennial price averages given in the margin. The principal rise occurred between the years 1855 and 1865, the figure for the former year being 55.50 seers to a rupee, and that of the latter 23.87. In the famine year of 1866 the figure was 9.76 seers to a rupee.
	Seers* per rupee.		
1837—46	...	43.20	
1847—56	...	57.94	
1857—66	...	28.58	
1867—76	...	26.87	
1877—86	...	21.26	
1887—96	...	18.22	
1901—10	...	14.04	
1911—20	...	9.66	
1921—30	...	8.64	

* Standard seers of 80 tolas.

The steady rise in prices is attributable to the improvement of communications bringing the district into touch with outside markets and permitting the cultivator to participate to advantage in the export trade.

The prices of other articles of common consumption have also increased considerably as the figures in the annexed table giving the prices in 1911 and 1930 will show.

			1911.	1930.
			Rs. a. p.	Rs. a. p.
Wheat	per maund	...	3 6 2	5 11 3
Dal	,,	...	2 3 9	10 0 0
Salt	,,	...	1 13 0	2 8 0
Ghee	,,	...	43 8 6	82 8 0
Cotton	,,	...	19 0 0	34 4 6
Tobacco leaf	per maund	...	10 3 0	17 2 3
Sugar (raw)	,,	...	4 15 4	8 0 0
Kerosine oil	(per tin)	...	1 12 0	3 6 0

**MATERIAL
CONDITION
OF THE
PEOPLE.**

**Agricultural
and
labouring
classes.**

Maddox in his final report on the 1897 Settlement wrote : " The general opinion of the officers who have for years worked among the people and gained their confidence is that 80 per cent of the rural population are more or less permanently indebted to the *mahajan*, proprietary tenure-holder or zamindar " ; and it is probable that this is equally true at the present day. The provincial Banking Enquiry Committee of 1929-30 found that the average indebtedness of a rural household in the three coastal districts of Orissa was Rs. 73, as compared with Rs. 92 on the Chota Nagpur plateau and Rs. 282

in Bihar. The percentage of households falling in the different categories was expressed in the following way :—

Free from debt	21
Lightly indebted (Re. 1 to Rs. 105) ...	42
Moderately indebted (Rs. 106 to Rs. 210)	17.5
Heavily indebted (Rs. 211 to Rs. 1,050)	15
Very heavily indebted (above Rs. 1,050)	1.5

Furthermore the annual borrowing was estimated at about 25 per cent of the total indebtedness.

It must not, however, be imagined from this that the indebted villager is in a very desperate condition. The *mahajan* is generally himself a local man, very often a well-to-do cultivator. He does not want to foreclose and take possession of lands mortgaged to him, and is quite content to allow the owner to continue cultivating them in return for a substantial share of the produce. Many landlords, both proprietors and sub-proprietors, have large granaries into which they put the produce of their own lands and the rents in kind received from *dhulibhag* and *sanjha* tenants. From this store the landlord is always ready to lend to his tenants, the principal being repayable with interest at the time of harvest either at 25 per cent (*sawai*), if the loan is taken soon after the harvest, or at 50 per cent (*derhi*), if taken at the time of sowing. The system is not as unconscionable as it sounds, since grain is always considerably less valuable at the time of harvest than at the time of sowing. Here again it is not the creditor's object to foreclose but merely to put to profitable use his own surplus, and, if the harvest is bad, he is generally prepared to allow the debt to accumulate at compound interest until a good harvest comes along. For cash loans the *mahajan* charges from $18\frac{3}{4}$ to $37\frac{1}{2}$ per cent for unsecured advances, and 15 to 20 per cent in the case of regular mortgages. The simple mortgage is known as *jaibandhak*, the money advanced being repayable with interest at the end of the term. Under a *bhagbandhak*, or usufructuary mortgage, the mortgagee enjoys the land in lieu of interest until the principal is repaid. A *katbandhak* is a similar form of usufructuary mortgage, but differs from the *bhagbandhak* in that the mortgaged land becomes the absolute property of the mortgagee if the principal is not repaid by the date fixed.

In a country already thickly populated, with no land available for the expansion of cultivation, every increase of population must cause a greater pressure on the soil, and this is accentuated by the fragmentation of holdings due to the prevailing system of inheritance. A holding large enough to support a man and his family may prove insufficient to support his five sons and their families. If the sons separate, each may find his holding insufficient, and may have to add to his earnings by working occasionally as a labourer for some one else. If the family remains joint, some of the members will have to seek work elsewhere in order to augment the joint family income. Although the railway affords employment to many, all cannot find employment locally, and emigration is the real safety-valve. Exact figures are not available, but there cannot be far short of 200,000 persons from this district who have gone to find work in Bengal and the coal-fields of Bihar, and most of these are sending home money regularly to contribute to the support of their families. The Garhjats also afford an outlet for the surplus population, and over 25,000 persons born in Cuttack were enumerated in these States at the 1931 census. These thinly-populated States have surplus land available for cultivation, and the emigration in this case is permanent, the emigrants being composed of men and women in almost equal proportions.

On the whole, therefore, although the circumstances of the ordinary cultivator cannot be said to be easy, he is not actually in want and has certain resources to fall back upon in hard times. He has, on the whole, benefited from the rise in prices, and his rent, which used to absorb nearly one-third of the produce now, only absorbs one-tenth. As Maddox says: "The Oriya cultivator is content with little, and that he generally gets. A full meal of rice once a day, taken with a little salt, some pulse or vegetables, and perhaps fish, suffices him, and he eats cold in the morning what is left over from the evening repast. Animal food is a luxury, but well-to-do men eat a little mutton or goat's flesh, and all classes eat game whenever they have the luck to kill any. The poorest classes take, to supplement their rice, boiled *kulthi* or *mandia* cakes, and find a substitute for vegetables in the many herbs and grasses that grow wild; and it is very few indeed who cannot fill their bellies with food which, if not appetising, is certainly satisfying".

The average area of a temporarily-settled estate in Cuttack Landlords. being only 138 acres, and there being as a rule eleven or twelve coparceners, the majority of landlords are but little removed from the cultivators, and it is not surprising that they are for the most part indigent and ill-educated, and divided by petty family feuds into hostile factions. They do little or nothing for their tenants, but except in the larger estates, where rapacious and ill-paid underlings, insufficiently controlled, sometimes oppress the tenants, the relations between the landlords and tenants are generally fairly good. There are still attempts to exact forced labour and illegal *abwabs*, but the tenantry are now for the most part sufficiently aware of their rights, and strong enough to resist anything in the nature of oppression.

The spread of education and the opening up of the Professional country have undoubtedly benefited the professional classes, but here, as in other parts of the province, the openings for employment have not increased as rapidly as the number of qualified applicants; and there is a great deal of unemployment.

The trading class has prospered with the opening of the Mercantile railway and the development of communications with outside classes. markets, but the large traders are for the most part foreigners. The Oriya generally has either insufficient capital or insufficient enterprise to compete with the foreigner in large scale business.

A movement that may be expected to have considerable influence on the material condition of the people is the development of co-operative societies. Beginning in 1903-04 with Co-OPERATIVE SOCIETIES. societies financed by Government and the Court of Wards in the Banki and Dompara estates, a net-work of societies had by 1918 spread over most of the district. A co-operative union had been formed embracing the societies in the Banki and Dompara estates, and central banks had been started in Jajpur, Cuttack and Kendrapara. Affiliated to these central bodies were 163 societies, of which all save four were of the agricultural credit type. A co-operative central union embracing the Kujang estate was added in 1923, being financed out of funds raised by the tenants of the estate and invested in War Loan. By the end of 1931 these five central banks and unions had 988 societies (937 of the agricultural credit type) affiliated to them, with a total membership of 23,137 and a working capital of Rs. 22,84,929. There were also nine co-operative grain *golas* with a membership of 1,467 and a working capital of Rs. 6,119.

The success of the movement has mainly been in the domain of agricultural credit. Special societies formed from time to time amongst brass and bell-metal workers at various places in the Cuttack and Jajpur subdivisions, the weavers of Narsingpur in Jajpur, and a co-operative stores for the Ravenshaw College, have almost invariably failed, with heavy loss to the central banks, owing either to selfishness and want of co-operation amongst the members or to inefficient management. Almost the only exception is the Sree Radhanath Co-operative Press in Cuttack town, which is owned and operated successfully by its members. A type of society with which experiments are now being made is the rural welfare society designed to foster hygiene, sanitation and mutual service amongst the villagers.

Besides relieving their members from debt the central banks and societies have done much useful work in starting and subsidizing schools both for children and adults, introducing new methods of cultivation, and distributing improved seed and chemical manures, digging wells and distributing medicine.

CHAPTER IX.

OCCUPATIONS, MANUFACTURES AND TRADE.

IN Cuttack, as in other parts of the Province, the large majority of the population are engaged in agricultural or pastoral pursuits, and the number of those who obtain their livelihood from other sources is comparatively small. The 1931 census returns show that 535,148 persons derived their living either as direct earners or as working dependents from pasture or agriculture, whilst 54,971 have agriculture as a subsidiary occupation; and these figures do not take into account the very large numbers of non-earning dependents. 122,494 persons earn their living in various industries, including 18,389 cotton-spinners and weavers, 12,909 carpenters and wood-workers, 4,361 blacksmiths and metal-workers, 8,602 potters, 48,071 rice-huskers and grain-parchers, 21,934 tailors, washermen and barbers, and 5,801 workers in precious metals. 5,216 workers are engaged in transport services and 48,334 in trade, the majority being dealers in food-stuffs; whilst the public services, professions and liberal arts account for 18,279, and miscellaneous occupations including domestic service for 47,545. Lastly there are 14,033 beggars, vagrants and prostitutes.

With the exception of the silver filigree work of Cuttack, the industries of the district are of little importance. As is only natural in a district where the great majority of the people are engaged in agricultural and pastoral pursuits and where the urban population is small, the bulk of the industrial community are engaged in supplying the simple needs of rural people. The people require very few articles of foreign manufacture; and brass and bell-metal utensils, coarse cotton cloth, and certain other articles manufactured for local consumption, such as woollen blankets, paper, pottery, etc. meet most of their wants. In the interior the artisans who make these articles form a component part of the village organization, some of them still holding service lands for their work; and even in the towns the manufactures are mostly of a primitive kind producing little for export.

Gold and
silver work.

Cuttack is one of the few places in the Province in which gold and silver work is carried on. This industry gives employment to about 400 families in Cuttack town and to 2,000 families in the interior. The instruments used are of a simple kind and the equipment of the workshop is equally primitive, as a small hole in the mud floor which serves for a furnace, an earthenware bowl, and a couple of fans without handles generally form the whole apparatus of the workmen. The artificers, patiently working by a trying light in ordinary earth-paved huts with these crude implements, turn out articles of extreme delicacy and finish and often of exquisite design. The majority are ornaments intended as tributes to feminine vanity, such as *alakas* for the forehead, hair-pins with four or five chains suspended from them, strings of flower-buds worn round the hair, and numerous kinds of ear-rings, some for the lobe, others for the side, and a third class for the upper portion of the ear, besides a number of ornaments for the nose, the neck, the wrists and arms, the waist and ankles. To this list must be added a long catalogue of silver fancy articles and ornaments of filigree work which are usually kept for sale in the Cuttack market. Some of these are vessels used at religious festivals and on ceremonial occasions, such as the rose-water vases or sprinklers brought into use at weddings, nautch parties and other festivals, and the *attardans* and silver platters for betel-leaf which are handed round at *darbars*; in addition to these, there are various articles of a modern character, such as cigarette cases, picture-frames, buttons and studs, figures of fish and animals, flower-vases, etc.

The crude material consists of gold with an alloy of silver and copper, and of silver alloyed with copper. The molten alloy is poured into a mould, and the bar thus produced is beaten on the anvil into a thin rod. The latter is then passed through the holes made in the *janta*, i.e. an iron plate perforated with holes varying in size. The thick wire obtaining by drawing the metal through the larger holes is gradually made thinner by being drawn through the smaller holes, some of which are about the size of a pin's head, while others are no bigger than a pin's point. This process is continued till the wire becomes finer and finer, and the requisite diameter is at length obtained; in this way 120 feet of wire can, it is said, be drawn from a rupee's weight of silver. The wire is then cut up into the lengths required,

bent and coiled into various shapes, and then arranged according to the design of the work on a piece of mica placed over a tin plate. When the different kinds of wire have been arranged and the design has been filled in, they are soldered together and the mica and tin plate are removed. The article is then coloured and burnished, a paste of salt and alum being put over it, and after being dried it is ready for sale. In purity of design and delicacy of finish the articles turned out in Cuttack surpass the gold and silver work in every other part of the Province, and the graceful skill with which the spider-web of wire is manipulated has made Cuttack justly famous for this kind of work. The gold and silver ornaments and fancy articles produced are exported not only to Puri and the States of Orissa, but also to Calcutta, Delhi, Bombay, Cutch, Bangalore, Akyab, Mauritius and even to Europe.

Formerly the manufacture of salt was a valuable industry, **Salt manu-** and Stirling has left it on record that the finest salt of all **facture.** India was manufactured in the wild inhospitable tract along the sea-coast of Orissa, and that under the monopoly system the East India Company obtained from this source a net revenue falling little short of 18 lakhs of rupees. In 1897-98 altogether 162,551 maunds of salt were manufactured, but the industry has now been ruined by the railway, which has encouraged the importation of the cheaper Madras salt, and was finally closed down in 1900. Investigations have recently been made into the possibility of reviving the industry on a modern scientific basis, but the report is not encouraging. The salinity of the water at the head of the Bay of Bengal is only half that of the Bombay coast, and the excessive humidity of the atmosphere during the long monsoon would limit the possible working season too greatly for a modern refining plant to pay its way in competition with more favoured localities.

Weaving is another industry which has suffered from **Cotton-** competition with imported goods. When the English first **weaving** came to Orissa, the fine muslins of Cuttack were eagerly bought up by the English factors; but owing to the preference of the people for cheap machine-made goods, the industry is now practically extinct. Weaving of cotton cloths is still carried on at Gulnagar, Jankoti and Kishornagar, and indeed in most of the villages in the interior, but the hand-made

article has been driven out of the market in nearly every part of Cuttack by mill-made piece-goods, and the country looms are almost at a stand-still. Even the impetus of the recent movement for the encouragement of the hand-loom industry has been unable to revitalize the industry to any great extent; many of the weaver caste have entirely forsaken their hereditary occupation and live solely by cultivation; and those who still work at the loom are forced to add to their income by taking service as labourers if they have not sufficient capital to rent land for themselves. Their manual labour cannot compete with machine-made piece-goods either in fineness or cheapness of price. Indeed the fact that the industry survives at all is due in the main to the successful efforts of the Department of Industries to introduce fly-shuttle looms and dobbies in place of the primitive apparatus formerly in use. Touring parties of weavers have shown by actual demonstration how the output can be improved and the toil lessened, and the readiness of the local weavers to learn is shown by the fact that during the year 1929-30 the Department disposed of 425 fly-shuttle looms and 64 dobbies to weavers of this district. Fine muslin is still woven at Gulnagar from imported twist; it meets the local demand, and also finds its way into the shops of Cuttack, where it is bought by the richer citizens and still commands a fair price.

Silk-
weaving.

The weaving of *tasar* silk on a small scale is carried on in the village of Gopalpur in the Dharmasala thana. The silk industry, like the cultivation of the betel-leaf, was introduced by a few Bengalis who emigrated to Cuttack from Burdwan or Midnapore. There are about 600 persons engaged in the industry, who are the descendants of the weavers who settled here about seven generations back. Almost every family owns a loom, and manages to earn about 2 annas a day per person without having to take to any subsidiary profession. The process they follow is as simple as the scale of their business is small. They maintain no large filatures, possess no intricate or improved form of machinery, and use only the *tasar* cocoons which they obtain from the jungle tracts to the west. The *tasar* cloth, which these weavers produce, is of a coarse and inferior quality. The bulk of the outturn is taken by traders in Madras, Berhampore and other places in Southern India, who make advances which are adjusted

when the fabrics have been finished. The value of the cloth produced is reported to be about Rs. 23,000 annually.

The rearing of *Eri* cocoons and spinning of the silk has also lately been introduced into the district as a cottage and school industry, the host being generally the castor-oil plant which is cultivated for the purpose. The industry shows promise, and apart from the schools there were 349 rearers in the district in 1929-30. At the Shelter Industrial school in Cuttack sericulture is taught along with basketry and weaving.

The other industries are few in number and of little significance. One or two tanneries manage to pay their way in Cuttack, and in particular the curing and dying of the skins of the large lizards which abound in the estuarine tract has found a profitable, if temporary, outlet for use in the manufacture of ladies' shoes. Shoes of ordinary leather, trunks, suit cases, etc. are also manufactured by the local tanneries. A small colony of stone-carvers settled at Naltigiri about 34 miles from Cuttack make images of gods and ornaments for temples in conventional designs; the industry is said to have been introduced by the Marathas, but it has made no progress. Locks, nails, nut-crackers, etc. are made at Baroda and Kalapadar in the Banki thana. The carpenters of Cuttack town have more than a local reputation for their skill in cabinet and furniture-making, and a certain amount of wood-carving is still carried on. Formerly the temples, *maths* and large houses had the woodwork in their inner verandahs elaborately carved, while the doors and windows contained good specimens of lotus and geometrical screen patterns; but now there is very little carving done, beyond the grotesque designs of gods and fabulous beings which are carved on the panels of doors and on boats. In Cuttack the manufacture of toys and sticks from buffalo horns is a speciality for which there appears to be a growing demand. The horn is generally cut to the required length, turned on a primitive lathe, and then polished; these articles obtain a ready sale, but the industry is only on a very small scale and is confined to a few families; attempts are being made to introduce power lathes. The only other indigenous industry which appears to prosper is the manufacture of brass and bell-metal utensils and ornaments. This has not yet suffered

from the competition of foreign or machine-made articles, though gilt ornaments of German silver are said to find favour with many of the women on account of their lightness, cheapness and gloss. The vessels manufactured are exported to Puri, Sambalpur, Sónpur, Ganjam and Calcutta and a thriving trade is carried on.

Mines.

There are no mines in the proper sense of the word. Sandstone, laterite and rubble are quarried from the hills along the western border, but only for the railway and local use. The laterite found in the gneissose hills along the road from Calcutta to Cuttack is admirably adapted for building by its durability, and is commonly used for this purpose.

Factories.

The report of the Inspector of Factories for 1929 shows 10 factories within the meaning of the Indian Factories Act. These consist of two Government factories, namely the Public Works Department Workshops at Jobra at which the iron and wood-work required for the maintenance of the anicuts, locks and canals is turned out, and the workshop attached to the Orissa School of Engineering; two printing presses, one railway workshop, one rice mill, two *dal* mills, one match factory and one tannery. The total number of hands employed was only 586, of whom 376 are employed in the two Government workshops. Industrial development in the district is plainly in its infancy.

TRADE.

English factories.

From the fact that the first English factory in the Province was established in this district, it is clear that it was at one time a place of some commercial importance. The first English expedition to Bengal set forth from Masulipatam in 1633; the party consisted of eight Englishmen, and the good ship, "Hopewell" that bore them was no better than a native junk. With favourable winds the expedition* managed to reach Harispurgarh, but soon after they arrived, a Portuguese frigate came in and anchored near them; and when the English went ashore, the master of the frigate "with the assistance of some of the ribble-rabble rascals of the town" set upon them, and the English "had like to have been all slain and spoiled, but that Lucklip, the *rogger* or vice-king there rescued them with 200 men". Cartwright,

* For a fuller account of the fortunes of this expedition, see the Early Annals of the English in Bengal, Vol. I, by C. R. Wilson.

the leader of the little band, soon afterwards set out with a valuable consignment of gold, silver, cloth and spices for Cuttack, where the Muhammadan Governor of Orissa held his court. Here he demanded redress for the Portuguese attack upon them and applied for a permit authorizing the English to trade in Orissa. The Portuguese captain also appeared, however, and charged the English crew with fighting in order to make a prize of his vessel and take his goods by force. A nobleman of the court was bribed by the Portuguese and espoused their cause; and Cartwright, finding he could get no satisfaction, "rose up in great anger and departed saying that if he could not have right here, he would have it at another place; and so went his way, not taking his leave of the *Nabob* or of any other; at which abrupt departure they all admired." At the next interview he found the Nawab in a far more favourable mood, and told him boldly with a stern undaunted countenance that "he had done his masters of the Honourable Company wrong, and by his might and power had taken their rights from them, which would not be so endured or put up". The Nawab then made some enquiries about the power and trade of the English and was informed that their maritime strength was invincible. This reply made a deep impression on the Nawab, and finally he gave the English permission to trade in Orissa. On the 19th May 1633 the English left Cuttack for Hariharpur, a village adjoining the present Jagatsinghpur; here they at once proceeded to build a factory, this site being chosen apparently because, to quote Bruton's account, "the town is very full of people; there are many merchants in it and great plenty of all things; here is also cloth of all sorts, great store, for there do belong to this town at least 3,000 weavers that are house-keepers, besides all other that do work, being bound or hired". This factory, however, was not long maintained, as the merchants did not understand the necessity for severe self-restraint and temperance in a hot climate; the country abounded with fruit and arrack, and these when taken in excess produced lamentable consequences. The place consequently acquired a bad name among the English, and its unhealthiness was one of the most serious obstacles to their progress. Trade was also crippled by the attacks of the Aracanese pirates and the opposition of the Portuguese; and to add to the difficulties of the English, the

river where their vessels used to lie having gradually silted up, it became unsafe for ships to ride there and difficult to send goods by sea that way. In 1641 the factory at Hariharpur was found to be on the point of dissolution, only a few fine muslins were in preparation, and the trade henceforward was diverted to Balasore which possessed far greater commercial advantages.

Trade under
the
Marathas.

We have little information concerning the commerce of the district during the 150 years which elapsed before the British conquest; but enough is known to show that the trade of the country was paralyzed by the oppressions of the local officials. However cheap might be the inland markets, the tolls and custom-houses on the roads and rivers made the goods too dear for exportation, and anything like internal trade was rendered impossible by the incessant black-mail which was levied. Besides the royal officers who imposed a tax at every few miles, each petty proprietor through whose estate the route lay lined the road with hungry myrmidons; and in the short journey of 103 miles from Cuttack to Balasore the tolls amounted to nearly a third of the total value of the goods.

Trade under
the English
rule.

The incursions and oppressions of the Marathas soon put an end to whatever commercial prosperity Orissa may once have possessed, and the trade in rice and salt, which had survived Maratha misrule, was considerably diminished when the Government asserted its right to the monopoly of the latter article. When we took the Province, however, considerable quantities of these articles were still exported from the ports, which were chiefly frequented by three kinds of craft, viz. (1) Maldivé vessels, which brought cowries, cocoanuts, coral and dried fish, and took back rice and earthen pots; (2) sloops which carried the Government salt to Calcutta; and (3) sloops, built at Contai and Hijili, which only came in the cold season and carried rice to Calcutta. The Raja of Kanika carried on a considerable trade in rice on his own account, and large numbers of swine and horned cattle found their way by land to the Calcutta market. The export trade, however, gradually dwindled down to a fraction of its former importance, and in 1813, the Collector reported that the only articles exported were rice and a little salt (about three lakhs worth), and that trade was hardly known even by name. The internal trade was equally limited and was confined to the supply of rice

and other articles of every-day use or consumption to the larger towns, and to the mutual exchange of surplus produce and articles of home manufacture at the *hats* or markets in the interior.

Then, as now, the grain markets in the town were in the hands of middlemen, who so regulated the supplies coming into the town as to keep up prices. When the rivers rose to an unusual height, or the crops failed to any considerable extent, the difficulty which the inhabitants of Cuttack experienced in getting food was extreme. The military authorities were constantly representing to the civil officers the difficulties they had in getting supplies for the troops. They asserted that they had often to go without sufficient food for several days together, and declared that unless this state of affairs was remedied, the sepoys would lose all sense of discipline, and setting their authority at defiance, plunder the grain shops in the town of Cuttack. In consequence of these complaints, the Collector was authorized in 1805 to advance the sum of Rs. 10,000 for the purpose of purchasing and storing a supply of rice for the town of Cuttack and for the military or cantonment bazar. A godown was built for the storage of this large stock, and a public market established for its sale on the site of the present Chandni Chauk. For many years after this Cuttack continued to be in constant want of supplies and frequently on the verge of famine. Time after time urgent calls were made on Balasore for rice, and pilgrims had to be warned of the scarcity in the district and directed to supply themselves with provisions before entering it. There was, however, no scarcity 20 miles north of the Mahanadi; at Balasore rice sold at 65 seers for the rupee and there was enough in store for three years' consumption; there were immense stocks at Dhamra and Churaman intended for export to Madras; and consequently it was thought that the scarcity of rice was not natural, but must have been artificially produced. It was pointed out that the large number of Marathas still resident at Cuttack were bitterly hostile to the English, and did their best to stop the import of rice in the hope of starving them out; they themselves ceased to import from Sambalpur, and they prevented the raiyats, many of whom were still in their debt, from bringing in grain to Cuttack. This was all the easier, as the raiyats had always been accustomed to give up nothing until they were compelled. The Marathas took what they wanted by force, and the raiyats

did not understand our method of asking for and paying for what we wanted; they took it for weakness, and were so elated at their release from oppression that they thought themselves quite independent and would do nothing to oblige anyone. Besides this, even the *amils* were in league against the English, as they had for a long time taken advantage of their position to secure the lion's share of the profitable export trade to Madras, and did not wish to sell in Cuttack.

In order to remedy this lamentable state of affairs, land was offered rent-free in perpetuity to any merchants who would establish grain shops near the site of the public market. It was at this time, and in consequence of this offer, that a row of houses arose on either side of Chandni Chauk, some of which exist in a dilapidated condition to the present day. But though this measure gave some relief to the inhabitants its effect was only temporary; the usual tightness of the market was enhanced by severe droughts and by floods which cut off communication with the interior; and the officers of Government were constantly interfering with the market in order to try and force down prices. The Governor-General was at last forced to issue stringent orders prohibiting this practice, and in 1821 a proclamation was issued declaring the freedom of trade and the absence of all restrictions affecting the grain market. Since that time trade has steadily developed with the opening of new communications, which placed nearly every part within easy reach of the markets. The roads have been improved and extended; the district has been covered with a net-work of canals, which enable the people to transport their goods to the sea and to all parts of the interior, and more recently it has been tapped by the railway and put into direct communication with the mercantile capitals of Calcutta and Madras.

Imports and
exports.

The trade of Cuttack, at the present day, consists chiefly in the exchange of agricultural products in their raw state for foreign manufactures, metals and articles of luxury. The chief article of export is rice which until recently was shipped from local ports to Calcutta, Mauritius and Ceylon, other exports being oil-seeds, hides, jute, timber, horns, feathers, bones, *panasi* grass, and silver filigree work. Jungle products such as myrobalans, lac, nux vomica, wax and resin come in from the Garhjats, salted fish from Puri, and with the other articles mentioned above are despatched to Calcutta, and to a smaller extent to the Madras Presidency. English and

Bombay piece-goods, kerosine-oil and specie are brought in from Calcutta, and sent out again to Puri and the Garhjats along with dried fish and salt; and a portion of the consignments of cocoanuts sent from Puri is forwarded to the Garhjats.

The principal articles of import from Calcutta are English and Bombay piece-goods, kerosine-oil, crockery, glassware, special fancy goods, potatoes, lead, copper, zinc, gold, silver and cotton yarn. Most of these articles are consumed in the district and a portion, as mentioned above, is sent to the Garhjats on the west and to Puri on the south. The articles imported from other places are salt, turmeric, chillies, sugar and tobacco leaves from Ganjam; cocoanuts, cocoanut-oil and salted fish from Puri; wheat, pulses, oil-seeds, cotton and molasses from the Central Provinces; lac, nux vomica, myrobalans, silk cocoons, wax, resin, iron, horns, hides, timber, catechu, oil-seeds and feathers from the Garhjats. The imports from Bengal consist of muslins from Midnapore, Bankura, and other places, and those from Madras of fine cotton goods and silk fabrics sent from Ganjam and Berhampore.

Cuttack is primarily an exporting district, the exports greatly exceeding the imports. Until well into the present century the principal avenues of trade were the Kendrapara canal to Chandbali and the Taldanda canal to False Point. A steamer service plied thrice weekly between Cuttack and Chandbali where it linked up with a regular steamship service to Calcutta. A considerable volume of trade was also done through False Point, and in some years as many as 38 ships have been known to put in there. In 1904-05 the value of the imports through this port was Rs. 3,350 whilst the exports were valued at nearly 22½ lakhs of rupees: nearly all this was foreign trade, rice for export to Ceylon and Mauritius, the value of goods carried by coasting steamers being only Rs. 76,800. In 1911-12 the exports alone were valued at Rs. 18,86,546, whilst coasting vessels imported goods to the value of Rs. 2,084, and exported rice worth Rs. 26,860. The railway, however, which was opened in 1899, gradually obtained a greater share in the trade, and the process was accelerated by the gradual silting up of False Point Harbour—never a very safe anchorage—and the outbreak of the great war, during the early months of which shipping in the Bay of

Bengal suffered severely from the depredations of the German cruiser " Emden ". In 1914-15 the value of exports from False Point dropped to Rs. 1,69,034 as compared with Rs. 18,16,995 in the previous year, and by 1919-20 the trade had ceased altogether. False Point harbour was closed in 1924; the Calcutta-Chandbali steamer service, and with it the connected service between Chandbali and Cuttack, is now reduced to one boat a week. Internal trade still continues to use the canals and waterways to a certain extent, as is shown by the fact that in 1930-31 over Rs. 85,000 was realized in tolls and 115,000 tons of cargo were carried. The principal items were rice, salt, jute, spices, building materials and miscellaneous articles. Nearly 1,300,000 bamboos and 44,000 logs were also taken along the canals in the form of rafts, but extra-district trade now goes entirely by rail. During the year 1931-32 the railway imported 86,000 tons of goods into the district and exported 50,000. The principal items of import were wheat, salt, sugar, oil-seeds, tobacco, fruit, and vegetables, provisions, manufactured cotton goods, lime and limestone, coal, petrol and kerosine-oil. The principal exports were rice, gram and pulse, jute, timber, marble and stone, manures and firewood.

**Mercantile
classes.**

The export business in Cuttack is almost entirely monopolized by a few rich merchants, who are in a position to make large advances at favourable rates. These merchants have their agents who establish small depots in various parts of the district and make large purchases of rice at the markets. These are concentrated and despatched from the nearest railway stations. There are many traders, however, who carry on heavy transactions in internal trade: they are generally the Telis, Kewats, Gurias, Patras and Golas of the district, but their numbers are swollen by Bengalis, Marwaris, Bhojpuris, Telingas, and Garhjati Jaunlias, who with their greater industry and enterprise have managed to establish themselves to the exclusion of the Oriyas. These dealers (*mahajans*) make advances of money to petty tradesmen, known as *beparis* or *gumashtas*, who go to different parts of the country, buying in the cheaper markets and selling off to advantage at the dearer ones. At the close of the year, or of any other definite period of time, they return home, render an account of their transactions, and pay the *mahajan* the money they have borrowed, together with a share of the

profits. The latter is divided between the *mahajan*, the *bepari* and the owner of the boat or pack-bullocks used in conveying goods from one place to another.

Sometimes the *mahajans* have *kothis* or warehouses in different parts of the interior, where they station resident agents or *kothi gumashtas*, who are often near relatives of the *mahajans* themselves. Goods are bought and sold here, and are also sent off to the *mahajan*; at the end of the year accounts are settled, the profits that accrue from the year's transactions being divided among them. Some traders, besides dealing in all kinds of produce themselves, also serve as brokers or middlemen for the sale of miscellaneous goods, and are known as *dandidars* (literally weighmen), i.e. men through whose intervention purchases and sales are effected.

Many *mahajans* personally keep up wholesale or retail shops, at which they sell their goods either wholesale to peripatetic dealers, or retail to ordinary purchasers. These shops, which are found chiefly in Cuttack, at the subdivisional headquarters and at a few other trade centres, are held for the most part by outsiders. In Cuttack town the Marwaris, who have been settled down there for the last 80 years, trade chiefly in European piece-goods; the Bhojpuris, who deal in spices, have been in Cuttack for the last 100 years; the Telingas, who followed the Madras regiments to Cuttack, have established themselves as traders in Deccan cloths, chillies, camphor, etc. and the Kabulis preside at stalls of dried fruits of all kinds and drive a flourishing trade as money-lenders.

External trade is carried on with the Central Provinces, Trade the Garhjats, Puri and Ganjam by means of carts and pack-^{routes.} bullocks, and during the rains by boats. But the railway continues the chief artery of commerce; the main trade of the district is that which is carried out of it or brought into it by this route, and the other means of communication merely supplement its work.

The internal trade of the district is similarly carried on by the railway and by carts, pack-bullocks and boats; it consists chiefly of cereals and pulses, country cloths, brass and bell-metal utensils, timber and firewood. Next to the railway the most important routes by land are the Taldanda

road, the Machgaon road, the Chandbali road, the Grand Trunk Road, the Sambalpur road and the Ganjam road.

The routes by water are furnished by the rivers and canals which traverse all parts of the district. The Mahanadi and Brahmani, together with their main branches, the Katjuri, Birupa, and Kharsua, are navigable in all seasons in their lower courses, though their upper reaches and minor branches generally contain little water during the summer. The canals are regularly used by boats. These highways of commerce have helped most materially to develop the trade of the district. The whole district is moreover intersected by a net work of channels and creeks, all of which are navigable by country boats during the rains and some throughout the year. With the district and village roads, they form important factors in opening out the more remote villages, so that there is generally some means of communication between them and the trade marts of the district.

**Trade
centres.**

The chief centres of trade are situated along the rivers and canals, or are in the neighbourhood of flourishing villages. The most important markets for rice, the chief article of commerce, are Jambu, Bhutmundi, Cuttack, Marsa-ghai, Alba, Kenduapatna, and Baraboria, and the most important places of supply are Cuttack, Kendrapara, Jajpur, Aul, Patamundai, and Baideswar.

**Markets and
fairs.**

Besides these, there are numerous minor markets or *hats* all over the district, numbering about one hundred and fifty, which are held every week on certain fixed days for the sale of the ordinary articles of consumption and of every-day use. The most important of these are Ichapur, Barhat, Mahipal, Thakurhat, Chandla, Mahalhat, Pandalo, Pailo Antoi, Pasai, Keshpur, Chandanagar, Rajnagar, Kerapur, Ganja, Olabhar, Talsanga and Nikrai in the Kendrapara subdivision; Gandkul, Katra, Bilhat, Tanghi, Champapur, Nischintkoilo, Niali, and Kuhunda in the Sadr subdivision; and Binjharpur, Kaipara, Haripur, Katikata, and Kayangola in the Jajpur subdivision. Almost all the trade of the interior may be said to be carried on in these markets. People flock in from great distances to buy stores for the week's consumption, and in many cases the *hats* form the sole source from which the villages can obtain the necessaries of life. Shops are very rare in small villages, and are generally of a very primitive kind, unable

to supply a single family with provisions even for a week, and totally unequal to meeting the wants of a whole village.

Fairs are held in different parts of the district in connection with the religious festivals. Some of these last for a day, others for a week, ten days, or even a month. Some of the petty fairs have no influence whatever on trade, but the principal *jatras* such as the Paus Sankranti *jatra* in pargana Katia, the Salanuni annual fair in Sargara, the Mahavinayaka *mela* in Darpan, the Charak Sankranti *jatra* in Madhupur, the Gundicha *jatra* in Tikan, the Asokashtami *jatra* in Jajpur, attract many shop-keepers and merchants from Balasore, Bhadrak and the Garhjats, as well as from the more important centres of trade in the district itself.

Cuttack has a peculiar system of weights and measures. ^{Weights and} The maund of 40 seers is recognized, but the Balasore seer ^{measures.} of 80 *tolas* is used for weighing imported goods, and the Cuttack seer of 105 *tolas* for indigenous goods. These seers are regarded as standard weights and are used in the municipalities and the principal market-places in the interior, though not to the exclusion of other weights. In rural areas, however, the seer and chittack are hardly understood, the weights in common use being the *pal*, *bisa* and *pasuri*, and for grain measure the *gauni*. The *pal* is equivalent to 6 *tolas*, but the *bisa* ranges from 18 to 30 *pals*, i.e. from 108 to 180 *tolas*, according to locality and the commodity weighed. No *bisa* corresponds, therefore, to the Cuttack seer of 105 *tolas*. In some places the people realize the disadvantages of this and calculate the *pal* at 5 instead of 6 *tolas*, so that their *bisa* of 18 *pals* may approximate the Cuttack seer. The *gauni* again varies from 1½ seers to 7 seers according to locality. It is a basket, and not only does it give wrong measure by losing its shape, but there is a buying and a selling *gauni*, the former being of course the larger; and it can be manipulated during measurement, e.g. by pressing, heaping up and filling loosely. There is thus room for unlimited fraud, and the extent of the evil may be realized when it is remembered that the *gauni* is the universal measure for weighing paddy throughout rural areas. The *pasuri* is equal to 3 *bisas*, and the weight in *tolas* therefore varies according to the weight of the different *bisas* used. In the Jajpur subdivision two special weights are said to be used, viz. the *gar* and *mutha*, which are 24 and 27 *pals* respectively.

Among measures the commonest is the *gauni* mentioned above. Other measures are the *petal* (1 seer 6 chittacks), used for measuring mustard, linseed, etc., the *pahili* (ordinarily=1 seer 1 chittack, used for weighing parched grain, etc., the *arha* for molasses, which generally=80 *tolas* in capacity, while country cloth is measured by the *hath* or cubit, which varies from 18 to 22 inches.

For land measurement the cultivator has readily adopted the habit of expressing the size of his field in acres and decimals (*dismil*), and the older notation of *mans*, *gunts* and *biswas* has virtually disappeared.

CHAPTER X.

MEANS OF COMMUNICATION.

WHEN the British conquered the district in 1803, it was practically isolated from the rest of India, and there was but little internal communication. In spite of the long sea-face, few vessels ventured to put in at the surf-beaten coast, and no measures were taken to survey the harbours or ascertain the capabilities of its estuaries. Traffic along the rivers, then as now, was rendered difficult by the enormous volume of water they bring down in the rains and by the fact that in the dry season they dwindle in their upper reaches to small streams running through broad sandy beds. In addition, however, to the natural difficulties of the river route, the vexatious imposts and transit-dues of the Marathas, as well as the black-mail which they levied, made it impossible for the boatmen to ply their trade with any profit, and these natural channels were practically unused. Throughout the district there was not a road, in the modern sense of the word, in existence. What were then called roads were mere fair-weather cart tracks, without bridges and without proper ferry arrangements for crossing the numerous water-courses which they intercepted; and the pilgrims to Puri, who are now quickly transported there by the railway, were forced to follow the dangerous route through Nilgiri and Mayurbhanj, which in many places passed through dense jungles infested by tigers and other wild animals.

The first step taken to remedy this state of affairs was the construction of the great Orissa Trunk Road, which was sanctioned in 1811 and completed in 1825. It was not metalled, however, and in 1854 Mr. Ricketts found it in exactly the same state as when he saw it 25 years previously. "It has not improved in any respect," he wrote, "it is the same long heap of mud and clay, always next to impassable for any wheeled vehicles, except for the high-wheeled Cuttack hackeries, and for many months of the year impassable even for them. In some parts, where the soil is sandy, foot-passengers do not suffer much inconvenience

DEVELOP-
MENT OF
COMMUNI-
CATIONS.

The Orissa
Trunk Road.

at any time of the year ; but across the many low plains where the soil is clayey, the difficulty of making any progress in wet weather can hardly be exaggerated. I have myself been nine hours going 10 miles."

The condi-
tion of
Orissa in
1866.

The terrible deficiency of communications which still existed as late as 1866 was made apparent in the great Orissa famine, when "the people were shut in between pathless jungles and impracticable seas, and were like passengers in a ship without provisions". The state of affairs at that time was graphically described by the Famine Commissioners of 1867 as follows:—"The whole province is geographically isolated to an excessive degree. To the north and north-west the hill tracts merge into countries more hilly, wild and inaccessible, by which they are separated effectually from Central and Northern India. There is a precarious traffic with Sambalpur by boats of a peculiar construction, which navigate the difficult river Mahanadi in the rainy season and for a month or two after; for the rest of the year this communication is closed. On the other side, the nature of the coast and the sea is such as effectually to stop all native traffic for the major part of the year. With one exception—False Point—there is no protected anchorage of any kind, and that exception may be said to be in some sense almost a recent discovery. Such being the difficulties on either side of the length of Orissa, the only ordinary mode of communication with the outside world is by the route traversing its length. That, however, is so much intersected by the streams already mentioned, and has been hitherto so little rendered practicable by art, that it is comparatively little used by wheeled carriages; pack bullocks still predominate at all times; in the rainy season wheeled traffic is quite impracticable; and when the rains are heavy, even pack-bullocks cannot be used. At this day the European officer who cannot obtain a special steamer must find his way into Orissa slowly and tediously, as ancient officers may have travelled in the days of Asoka, and the very post takes several days between Calcutta and Cuttack."

Subsequent
measures.

This calamity directed attention to the state of all the Orissa districts, and measures were taken to prevent the recurrence of a similar disaster, roads being opened up, the coast surveyed and canals constructed. The communication with the outside world, which was thus established, effectually broke in upon the isolation of Orissa, and more recently the

Bengal-Nagpur Railway has extended its system through the district. It is now amply provided with means of communication by the railway and an extensive system of roads and canals. The railway passing through it from north to south connects it with Calcutta on the one hand and Madras on the other; the roads place every part within easy reach of the markets; and a net-work of canals and distributaries covers the whole country.

As early as the 17th century Cuttack was reached by the circuitous route from the Dhamra river via Patamundai, up to which place sloops and brigs were able to come with Government and other stores; and Harispurgarh at the mouth of the Patua appears to have been a place of resort for coasting vessels. It was here that the English landed when they first advanced from Masulipatam to Orissa in 1633; it then possessed a fair anchorage, boasted a custom-house, and was described as "a place of good strength with whom our merchants hold commerce with correspondence". The harbour is now sand-barred, and even in Ralph Cartwright's time the river could only be ascended in small boats for some 8 miles as far as Kosida; but the old name of the mouth of the Patua, Boita-kuliya or ship-haven, is significant of its former importance. Soon after the occupation of Orissa, the English made attempts to improve and extend the communications by sea. In 1811 a Master-Attendant was appointed at Manikpatna in the Puri district, and a Deputy Master-Attendant was posted to Dhamra. The light-house at False Point was commenced eight years later, and after almost insuperable difficulties had been overcome, the building was finished and the first light lit in 1826. The advantages of False Point as a harbour and port were not discovered, however, till a much later date. During the first half of the 19th century, this anchorage was little known and almost unused. Although but two days by steamboat from Calcutta, no regular communication existed; no important trade was carried on; and the exports consisting chiefly of rice were entirely in the hands of a few native shipmasters from the Madras coast. A traveller landing at False Point found himself as far from Cuttack as if he had never started from Calcutta, while its isolated and jungly situation, and the long, tedious boat-route inland, through dense forests and across malarious swamps, rendered it impracticable for goods or passenger traffic.

WATER
COMMUNI-
CATIONS.
Harbours.

About 1862 the newly started East Indian Irrigation Company perceived its capabilities for the importation of stores, and an enterprising French firm in Calcutta shortly afterwards established an agency for the export of rice. But for several years the arguments against adopting it as a harbour seemed to be irresistible, as it was represented to be a fever-stricken, jungle-buried creek, several days' journey from any large town and with scarcely a practicable channel inland. Colonel Rundall, however, after a careful investigation insisted on its capabilities, and the history of the famine of 1866 proved him to be right. During that year, when Government was anxiously exploring every means of throwing supplies into the Province, False Point harbour formed the main entrance by which food was brought in. The Famine Commissioners reported that it was the best harbour on the whole Indian Peninsula between the Hooghly and Bombay, and strongly urged its claims upon Government. The harbour was re-surveyed and deepened, the channels were clearly buoyed off, and it was connected with Cuttack by means of the Kendrapara canal. It was confidently expected that False Point would grow into an important harbour and form the entrepot for the import and export trade of Orissa. A scheme was put forward in 1875 for the improvement of the port at a cost of Rs. 2,33,000; it was suggested that Port Commissioners should be appointed; and the matter proceeded so far that the Bengal Government moved the Government of India to extend the provisions of the Indian Ports Act to False Point. In the next year, however, the Superintendent of Marine Surveys deprecated any large expenditure on the port, and the event has shown the wisdom of his recommendation. The expectations that False Point would be the great port of Orissa have not been realized. It was found impossible to prevent the silting up of the harbour, and the port was abandoned in 1924.

Rivers.

At first sight it would appear that the great rivers, which issue from the western hills and then pour into the sea after traversing Cuttack, should afford a magnificent highway for the products of Central India. The anicuts constructed across them have, however, cut off direct communication between the lower and upper reaches; during the rains they become dangerous for navigation owing to the high floods they bring down, and during the rest of the year the current is sluggish and the volume of water small. Even in the greatest of these

rivers, the Mahanadi, numerous sand-banks obstruct the channel in the dry season, and the boatmen are frequently obliged to dig out narrow channels to allow their craft to pass. In spite, however, of these obstacles, there is uninterrupted communication from above the anicut of Cuttack as far as Sambalpur, though the traffic has been diminishing since the latter district has been opened up by railway. There is some traffic on the upper waters of the Brahmani, but the jagged rocks which in places stud the stream render it dangerous for large boats. Both this river and the Baitarni almost dry up during the hot weather in their upper reaches, and the shallow depth of water only allows small boats to ply along them. On the other hand, all the rivers have sufficient water to enable boats to pass and repass further down their course, and there is a fair amount of traffic in the lower tidal reaches. With this exception, they are on the whole either too shallow or too uncertain to be very largely used, and they do not possess any great value as trade routes.

The district board controls 42 ferries, of which the most **Ferries.** important are that across the Baitarni at Chandbali, and that across the Mahanadi connecting Cuttack with the Angul-Sambalpur road. Passengers are charged small fees, and the right of collecting these is sold by auction, all the ferries being leased out annually to the highest bidders.

For the reasons mentioned above, but little use is made **Canals.** of the rivers as highways, in spite of the canals which take off from them and provide communication with the sea-coast. The use of boats has been restricted from time immemorial, and the people have always been accustomed to carry the internal traffic of the country along the roads by means of pack-bullocks and carts. They were thus neither sufficiently accustomed to navigation nor prepared to utilize the canals when they were opened; and these water-ways have consequently never been used as extensively as they might have been.

The volume of traffic on the canals has therefore never **RAILWAYS.** been very large, and the trade passing along them has now diminished owing to the competition of the railway. The line of the Bengal-Nagpur Railway which passes through the district was opened in 1899. It connects Cuttack directly

with Madras and Calcutta, and the stations are so placed that they receive all the grain now brought into the headquarters town and all that is imported from the Feudatory States. The finest pieces of engineering work on the line are to be seen near Cuttack; to the north of the town a great bridge has been built over the Mahanadi of girders laid on massive masonry piers, while to the south, where the iron road has been carried over the wide-stretches of sand and water extending between this station and Barang, one of the most difficult pieces of riverine engineering to be seen anywhere in India has been successfully carried out.

ROADS.

From the account given above, it will be seen that Cuttack long continued practically roadless even after the British occupation, and that the roads are a creation of the last half century. The district is now very well supplied with these means of internal communication. Some areas are, however, still very difficult of access, such as the parganas of Benahar and Khandi and the strip of country between the Taldanda and Kendrapara canals; while in other parts many villages are only accessible by pack-bullocks, and others again can only be reached by boats in the rainy season. This, however, is only a natural incident of a deltaic country, where the large rivers intersecting the plains make the construction and maintenance of roads a matter of great difficulty. In spite of these difficulties, there has been a great advance since the great Orissa famine; and there are now 70 miles of provincial roads maintained by the Public Works Department, all being metalled, while the district board maintains 143 miles of metalled and 420 miles of unmetalled roads, besides a number of village tracks with a total length of 416 miles.

Provincial roads.

The most important of the provincial roads is the Orissa Trunk Road, a great highway running from Midnapore to Ganjam in the Madras Presidency. Begun soon after the British occupation, it took the place of the old pilgrim road which had replaced the former route through Nilgiri and Mayurbhanj; traces of this pilgrim road are yet visible in ruined but massive bridges, in the Hindu style of architecture, standing in solitude over streams where there is neither road nor traffic. The road was carried as much as possible along the old line and through waste land and jungle; the bridges were built almost entirely of stone taken from the ruined forts and temples in which the Province then abounded; and it

was completed as far as Bhadrak about 1819. It enters the district at Akhuapada 46 miles from Cuttack, and, skirting the western hills, it runs along the High Level canal as far as that town, and then divides into two, the Cuttack-Puri road, generally known as the Jagannath road, and the Cuttack-Ganjam road. It is raised and metalled throughout, and there are ferries across the Baitarni, Kharsua, Brahmani and Mahanadi rivers.

The other provincial road is the Cuttack-Sambalpur road, passing up the Mahanadi valley through Athgarh and Angul and bringing down the traffic of the Garhjats, but only just over 2 miles of this road lie in the Cuttack district.

The principal district board roads are : (1) the Cuttack-District Chandbali road, 63 miles long, of which 17 miles are metalled, ^{District board roads.} which connects Cuttack with the important port of Chandbali. It runs along the Kendrapara canal to Kendrapara, and then strikes north-east to Patamundai; after this, crossing the Brahmani, it goes due north to Aul, and leaving that place continues its north-easterly course across the Kharsua as far as Chandbali. (2) The Cuttack-Taldanda road, 44 miles long, of which 14 are metalled, running along the southern bank of the Mahanadi, and forming with the Taldanda canal, the principal route between Cuttack and False Point. (3) The Kandampur-Machgaon road, which takes off from the last road at the 11th mile and reaches Machgaon after completing a course of 32 miles, more than half of which are metalled. Like the Cuttack-Taldanda road, it is an important trade route and carries a heavy traffic in grain. (4) The Phulnakhra-Madhab road, 25 miles long, which is carried along the border of the district from the 10th mile of the Puri road to Madhab and then on to Puri. (5) The Cuttack-Sonpur road running up the valley of the Mahanadi through Banki into the Sonpur State. It has a length of $34\frac{1}{2}$ miles in this district, of which 23 are metalled.

Besides these, there are a number of cross-roads connecting the main roads; and since the construction of the railway the district board have opened feeder roads wherever they were necessary to connect the stations on the railway with the interior of the district. That body has also taken steps to extend the existing village roads and to add to their number; the task is however difficult, as the villagers are

always apt to encroach on them and to divert old roads to suit their convenience. The district board has done much to improve this state of affairs, but in spite of its activity there are still many places where there are no village roads at all, and often the villagers can only cross the country by wading through creeks infested by alligators.

Bungalows. The district is very well supplied with staging and inspection bungalows. There are bungalows about every 10 miles along the provincial roads, the five principal district board roads mentioned above, and the canals, as well as at other central positions.

Motor transport. The development of motor transport has not passed Cuttack by. Cars for hire ply in Cuttack and several others of the larger towns, and over 50 motor lorries maintain more or less regular services along most of the principal roads in the district, though on some routes these have to be limited to the dry months only. The principal routes are (1) Cuttack to Anantpur, (2) Cuttack to Machgaon, (3) Jagatpur to Patamundai, (4) Mandmuhan to Banki, and (5) Jajpur Road station to Binjharpur via Jajpur.

A few motor launches have also started plying for the conveyance of passengers along the canal between Cuttack and Kendrapara.

Country carts. The cart in universal use is somewhat peculiar in shape. Two poles of *sal* wood or bamboo about 12 feet long, tied together at one end and about three feet apart at the other, are joined by cross bars at intervals, and this framework rests on a pair of wheels about four feet high and four feet apart. The bullocks are yoked one on each side of the narrow end, and will drag half a ton 15 or 20 miles a day on a metalled road. For carrying grain a long coffin-shaped basket of split bamboo called an *odaro*, which will hold about 10 maunds, is fitted on the cart. In some parts of the district, carts called *khaoraks* are common; these have no wheels, and the framework inclines from the yoke of the bullocks right down to the ground at the back. From the Garhjats come heavy buffalo carts, shorter and broader in make, with low wheels of solid wood.

POSTAL COMMUNICATIONS. In 1906 the district boasted 66 post offices, 15 telegraph offices and 887 miles of postal communication. The figures

below will show the development that has taken place in the last twenty-six years :—

Number of post offices	...	...	119
Telegraph offices	...	...	27
Number of miles of mail line—			
(a) by train	...	...	128
(b) by motor	...	...	62½
(c) by runner	...	...	489½
Number of letters delivered annually	...	2,571,522	
Number of postal articles delivered annually.		156,951	
Number of telegrams issued	...	27,088	
Number of Savings Bank Accounts	...	15,308	
Value of Savings Bank Accounts	Rs.	13,65,026	
Annual value of money orders issued	Rs.	27,53,377	

CHAPTER XI.

LAND REVENUE ADMINISTRATION.

HINDU
REVENUE
SYSTEM.

THE early Hindu rulers of Orissa recognized no middlemen between them and their subjects, and every cultivator was in theory bound to pay to his sovereign a share, estimated at from one-twelfth to one-fourth of the gross produce of his land. The nominal proportion was one-sixth at the outside, but in fact was often more. The residents of each village paid their quota through a headman (*padhan*) who, in consideration of the services he rendered in collecting the revenue, was allowed to hold free of all payment a certain share, not exceeding one-twentieth, of the total land under cultivation, and probably also retained some part of his collections as a perquisite of his office. The village accounts were checked by the accountant (*bhoi*), who was also paid by the grant of a few acres free of assessment. These villages were grouped into large divisions (*khand* or *bisi*) of 10 to 50 square miles, the prototype of the modern *pargana*, many of which are still known by their old Hindu names, such as the Nahakhand and Derabisi *parganas*. Over each of these divisions was an executive officer called *khandpati*, who acted as the representative of the sovereign, and with the assistance of the divisional accountant (*bhoimul* or *bishayi*) collected the revenue and handed it on to the head of the district or *desadhipati*.

This was the system in the regulation provinces of the Hindu kingdom, but along the hill borders and on the scantily-populated littoral the land was held by military chiefs who paid a tribute to their suzerain, and were independent as regards the internal administration of their properties.

MUHAM-
MADAN
REVENUE
SYSTEM.

The first regular settlement of Orissa was begun in A.D. 1582 by Akbar's victorious general Todar Mal and was concluded in 1591 by Raja Man Singh: this settlement is given in the Ain-i-Akbari as 17 lakhs of rupees for the whole of that Province. For the most part the border chieftains were left untouched; but in the central and most highly-cultivated

portions of the district a detailed settlement was made, and the rates of rents in every village were fixed. The hereditary Hindu officials of the *pargana* (*khand* or *bisi*) were confirmed in possession, the *khandpatis* and *bhoimuls* becoming *chaudhris* and *qanungos*, and being entrusted with the collection of revenue and vested with the other rights and liabilities of zamindars for the portion of the *pargana* or *taluk* under their direct management. The village headmen were maintained under the appellation of *muqaddam*, an Arabic word meaning headman, their customary right to hold one acre in twenty free of assessment being commuted to a grant of a definite quantity of land as *jagir*. Where there were no hereditary headmen or where the *padhan* had been dispossessed, collections were often made through an agent (*karji*) or farmer (*sarbarahkar* or *mustajir*) appointed by the *talukdar*, and many of these developed into hereditary tenure-holders with rights almost equal to those of the *muqaddams*.

The *talukdars* were remunerated by grants of land (*nankar*) given for their support, and by deductions of 5 per cent from the gross collections of the villages in their charge, as well as by permission to collect what they could in the form of octroi, market-dues and other extras. The land-owners got a deduction of 10 per cent, besides one-twentieth on the total collections in the form of rent-free land. Nominally one-twentieth was the customary deduction, but it was probably greater in the case of zamindars than in that of *chaudhris*, and was less still for the *qanungos*. For the supervision of these land-holders Raja Man Singh grouped the *parganas* into three *sarkars*, Cuttack, Bhadrak and Jaleswar, each being placed in charge of a chief executive officer called an *amil* and of a checking revenue officer or *sadr qanungo* with several subordinate collecting agents (*gumashtas*), who were paid originally by a percentage on the collections.

The *talukdars* and superior officers were nominally appointed by the sovereign or his representative, and were so far officials that they acted jointly in making or sanctioning alienations and assignments of the land or its revenues, and could be removed from their office for bad conduct; but under the two centuries of misrule and revolt that followed Akbar's reign, their hold on the land grew stronger, and the right to appoint lapsed into a purely formal custom of confirming the

heir of the deceased official; even the *amil* and the *sadr qanungo* came to hold large estates, stepping into the shoes of dispossessed *talugdars*, for whom they stood security. Their office was abolished by the Marathas, who appointed *amils* and *sadr qanungos* of their own, and at the time of the British conquest these ex-officials were found only as holders of large and valuable estates.

Besides the *talugdars*, there were also a few land-holders in possession of whole *parganas*. They alone were officially styled dependent Hindu *sardars* or zamindars, and were generally either descendants of the old reigning princes, as in the case of the zamindar of Utikan, who was the Raja of Kanika, and the zamindar of Saibir, who was the Raja of Patiya, or were border chiefs (*khandait* or *bhuiya*), such as those of Darpan and Madhupur. Besides these two classes, a good many superior officials were appointed zamindars in return for special services, and it appears that the Marathas recognized sixteen of these zamindars in the Cuttack district. Like the *talugdars*, they all held under deeds of appointment, and though their position was more honourable, their rights and liabilities did not in any way differ from those of the *pargana* officials.

MARATHA
REVENUE
SYSTEM.

In 1742 occurred the first invasion of the Marathas, and from 1751 Orissa became a Maratha province under the management of a *subadar*. The new conquerors made in theory no change in the fiscal organization, but recognized the people whom they found in possession of the land without asking inconvenient questions. Orissa, the most peaceful part of their dominions, they regarded solely as a source of revenue, and to this end appointed 32 *amils* to look after the collections, with distraint officers under them, who squeezed the uttermost farthing out of the people. Defaulting *talugdars* they unhesitatingly dispossessed, and where they found a village headman strong enough to be independent of the *pargana* official, they allowed him to pay his revenue direct into the treasury. To some extent this had been the practice in the later days of the Mughal rule, when numerous independent estates were created by grants to Ministers of State or for the maintenance of the Nawab's household. These estates consisted generally of numerous small parcels of land in different villages—an arrangement which was inconvenient in many ways, but was perhaps intended to give

these officials an interest in touring or to provide them with a foothold in the different villages. The accounts were kept separately as direct collections (*hazurtahsil*), and were credited to the support of special departments. To the category of petty separate revenue units were subsequently added the alienated estates known as *kharidagi*, i.e. purchased estates and the resumed jagirs of torch-bearers (*masalchi*) or yeomanry (*dograi*); while, as already mentioned, the Marathas also accepted direct payment from many village headmen. All these estates were known as *mazkuri*, i.e. specified in the revenue-roll, and their holders were treated as having exactly the same rights as *taluqdars*, though the position they held was one of less dignity.

During the fifty years of Maratha rule, the position of the cultivator and payer of revenue (*malguzar*) was one of extreme difficulty. Farming leases of estates were put up to auction in Nagpur and were bought sometimes by two or three persons, all of whom came to Orissa and tried to levy what they could, the purchasers, who were known as *asamis*, being responsible for the collection of revenue. The Maratha demands knew no limit, default in payments subjected the *taluqdars* to dispossession, imprisonment and fine, and when all other means failed, the Maratha cavalry harried the country and plundered the villages. The *taluqdars*, when pressed, retaliated on the people by levying extraordinary cesses and so-called voluntary contributions, and their exactions were only limited by the fear of driving the tenantry to abandon their villages and leave the land uncultivated. When the Maratha cavalry appeared, the villagers would fly to the woods driving their cattle before them, only to return when the troops had retired; but sometimes a border zamindar was strong enough to meet force with force and beat back the invader, or at least compel him to accept reasonable terms.

Along the sea-coast, however, and in the mountainous regions on the west known as the Rajwara, the old organization survived unchanged. This tract included the territories of some of the feudal chieftains who ruled over the barbarous races of the hills and the lands assigned in Todar Mal's and Raja Man Singh's settlements to the descendants of the Hindu kings. Many petty Rajas along the coast were reduced to the position of ordinary zamindars, but to the last the hill chieftains resisted even the Marathas with some success.

They were periodically plundered, but it was only by a considerable show of force that the Marathas could compel payment, and amidst the inhospitable wilds and forests the horsemen were at a disadvantage and were as often defeated as victorious.

With all their extortion the Marathas appear to have collected annually about 11 to 12 lakhs of rupees from the Province, which is less than the estimated revenue of the Mughals; but this was the natural result of the rapacity of the conquerors, which defeated itself by discouraging thrift and throwing large areas out of cultivation.

EARLY
ENGLISH
ADMINIS-
TRATION.

All that can be definitely said of these early settlements of the Province would appear to be that, while the Mughals made some attempt to proportion the revenue to the assets of the country the Marathas wrung out of it all they could, irregularly and ruthlessly, with the result that, when we first approached the question of its settlement in 1803, the Province was found much impoverished and in a state of anarchy. The British Commissioners determined to cancel all balances outstanding from the demands of former years and to base the demand for the current year on the receipts for previous payments, after making suitable deductions on account of *abwabs*, excessive assessments and the sums collected in advance by the Marathas. In 1804 they issued instructions for making the first regular settlement of the Province, which were subsequently embodied in Regulation XII of 1805. It was to be for one year only, 1804-05, and was to be followed by a triennial settlement. One of the most important objects in view was to bring deserted villages into cultivation. As the Marathas and their predecessors had based their demands on the amount of land actually under the plough, without reference to the amount of cultivable land in each village, very little encouragement had hitherto been held out to cultivators and proprietors to increase the cultivated area. The Oriya raiyat, whose poverty was his only protection against robbery, extortion and oppression, cared only to grow sufficient rice to support himself and his family for the year. Liberal terms, therefore, were to be offered to those who would bring waste lands under cultivation, but the engaging parties were to be bound, in the most positive manner, and under a severe penalty, not to bring or entice raiyats from lands already cultivated, but to collect their raiyats from without the Company's

territories. That such a proviso should be necessary shows the wretched state of the Province under Maratha oppression and misrule, which forced the home-loving Oriyas to forsake their hereditary fields and take refuge in the wild tracts in the hills.

This settlement was concluded early in 1805 and was followed by a number of temporary settlements. A triennial settlement was first concluded, and then in 1908-09 another settlement was made for one year, which was afterwards continued for a further period of three years. Other settlements followed in quick succession—in 1812-13 for one year; in 1813-14 for two years; in 1815-16 for one year; in 1816-17 for three years; in 1819-20 for three years; and in 1822-23 for five years. The history of these early settlements is an unfortunate record of assessment on insufficient enquiry and of the enforcement of inelastic rules for the realization of inequitable revenues; many an old Oriya family was ruined, and the proprietorship of the land fell, in many cases, into the hands of Bengali speculators. In 1804-05 the assessment for this district was Rs. 4,43,000, and the triennial assessment of 1805-08 brought in an increase of Rs. 2 lakhs which was, however, made with very little reason. The Collector had no information as to the real assets of the estates, for the zamindars and *amils* combined to withhold all papers, and he had to proceed on a very rough estimate of the quantity of land in cultivation and on the reports of interested subordinates. Arrears accumulated rapidly; and in 1806 began the system of putting up defaulting estates for sale in Calcutta, a policy which proved the ruin of many old families and allowed Bengali speculators to buy valuable properties at low prices. By 1816 the demand had risen to over Rs. 7 lakhs with but little justification for the increase either in the spread of cultivation or the circumstances of the people. They were disheartened at the constant alterations of revenue, and many left their estates to be held by the Collector, who in his turn either managed them through *tahsildars*, who embezzled as much as they could, or farmed them out to speculators, who rack-rented the raiyats. A large portion of the revenue assessed could not be collected, the hardships of our revenue system were aggravated by repeated droughts, and the amount realized fell to 65 per cent of the demand.

The Khurda
rebellion.

At last, in 1817, the people, driven to desperation by mismanagement, broke out in what is known as the Khurda rebellion, when the *paiks*, or landed militia, rose in open revolt against the oppression they suffered at the hands of the underlings to whom was entrusted the collection of the revenue, and against the tyrannies of a venal police. The rebellion was quickly stamped out, but it served to bring home to the authorities the deep discontent and real grievances of the Oriyas; and in Regulation VII of 1822 Government shortly afterwards proclaimed its intention of concluding a settlement after making a detailed investigation into the circumstances of the Province.

THE SETTLE-
MENT OF
1837.

The foundations of the present prosperity of Orissa rest on the great settlement of 1835 to 1845. Preparations for this settlement was commenced as early as 1830, and it was held to run from 1837, although the proceedings were not finally completed before 1845. Taught by the mistakes of their predecessors, the Settlement Officers toiled with marked industry and ability to master every difficulty that stood in the way of a fair assessment, and to store up and tabulate the detailed information, as to the material condition and economic circumstances of the country, without which no successful settlement can be made. Their efforts were cordially supported by the authorities in Calcutta, and their reward has been the unquestionable success of the settlement, the implicit confidence of the people in the records prepared by them, and the endurance of their names as household words throughout the districts in which they laboured. The operations cost upwards of Rs. 20 lakhs, and the result was an increase of revenue of only Rs. 34,980 for all three districts. In Cuttack it was found that the cultivated area dealt with amounted to 697,000 acres, of which 621,000 acres were assessed. The demand was fixed at Rs. 7,14,100, the incidence of revenue being Rs. 1-2-5 per acre; and the balance of the assets left to the zamindars was Rs. 4,06,900.

The settlement then concluded was made for 30 years and expired in the year 1867, but the great Orissa famine of the year 1865-66 rendered it inadvisable to undertake resettlement operations when the former settlement was drawing to a close, and that settlement was accordingly prolonged for another thirty years. The history of the rapid recovery of the Province from the horrors of the great famine has subsequently shown

that this extreme leniency was scarcely needed, and that a settlement might well have been made some twenty-five years ago to the advantage of Government and without undue harassment of the people. The result of the excessive prolongation of the former settlement has undoubtedly been the exclusion of Government for a lengthy period from its fair share of the produce of the soil, and the retention by the landlord classes in Orissa during the same period of profits to which they had no equitable right. During the sixty years of the currency of the settlement of 1837 the district developed in every direction in spite of the disaster of 1866; cultivation extended by nearly a third; communications were largely improved, bringing an increase in the volume of trade; and the prices of staple food-crops were trebled, securing largely increased profits to the cultivators.

The next settlement of the Province was a work of great magnitude; the operations extended over a period of ten years from the end of 1889 to the end of 1899, and over an area of 5,000 square miles; rents were settled for a million and a half of tenants, and the Government revenue on nearly six and a half thousand estates. In this district the cost of the settlement was Rs. 766 per square mile, the area assessed was 822,500 acres and the revenue fixed was Rs. 10,99,300 giving an incidence of Rs. 1-5-5 per acre. The settled assets were Rs. 20,72,900, and the actual percentage of the assets taken as revenue thus amounts to 53 per cent, or 11 per cent less than it was at the preceding settlement. The enhancement made in the land revenue was as much as 54 per cent, but even so it was materially less than was anticipated, and a considerable portion of the enhanced revenue was relinquished by the progressive introduction of the new assessment in the case of estates of which the liabilities were largely enhanced.

Proceedings for a revised settlement to take effect from 1927 were commenced in 1923, and have just been concluded. They covered the entire temporarily-settled area, all the *khas mahal* estates except Banki, and all the permanently-settled estates with the exception of Qilas Darpan, Madhupur, Dompara and a few jungle blocks in Qilas Kujang and Kanika; in fact a total area of 3,062 square miles. The result has been the assessment of 867,844 acres to a revenue of Rs. 14,61,594 giving an incidence of Rs. 1-11-1 per acre. The settled assets are Rs. 27,61,879, and the proportion taken as revenue represents 52.9 per cent as against 53 per cent at the previous

SETTLEMENT
OF 1897.

REVISIONAL
SETTLEMENT
OF 1927.

settlement. The revenue has been increased by 33 per cent, and the profits left to the land-holders after payment of the revenue by 33.9 per cent.

In some estates, where the increase in the assets has been abnormal, temporary concessions have been allowed, and the ultimate revenue demand of Rs. 14,61,594 therefore will not come into effect until 1944. The difference of revenue in the intervening period will not exceed Rs. 5,000. The total demand includes a sum of Rs. 24,412 payable to the *chaukidari* fund as compared with Rs. 20,859 at the last settlement.

The moderation of the enhancement is shown by the result of the resettlement on the total income of the *zamindars*. This amounted to Rs. 8,97,758 at the last settlement. It increased in the interval to Rs. 10,77,380, and that now allowed to them is Rs. 12,02,176. Their income thus advanced by 20 per cent during the course of the settlement, and the revision has given them an increase of 12 per cent over their existing income, and 34 per cent over their income at the last settlement. This is exclusive of the amount allowed to sub-proprietors. It must be remembered that during the intervening 30 years Government did not share in the increase of the assets owing to expansion in cultivation. The cultivated area liable to assessment increased by 46,000 acres during the settlement, the annual value of which would be about a lakh and a half of rupees. The assets of the proprietors as a result of the re-settlement of 1927 are Rs. 27,61,879 (inclusive of Rs. 3,15,936 allowed to sub-proprietors), whereas the revenue to be paid is Rs. 14,61,594; of the balance the proprietors retain Rs. 12,02,176 and sub-proprietors Rs. 98,109.

A noteworthy feature of the change that has taken place in course of the last settlement is the multiplication of estates. Partitions since the last settlement have led to an increase in the number of estates from 4,452 to 8,374 and the number of recorded proprietors has risen from 5,400 in 1837 to 31,900 in 1897 and 100,200 at present. The lands in the direct possession of the proprietors are 88,284 acres in area, besides an area of 14,175 acres of their private lands cultivated by *rai-yats*. The area recorded as being in direct possession of proprietors at the last settlement was 85,820 acres.

GOVERNMENT
ESTATES.

There are only eight estates held *khas* by the Government. The most important is *Qila Banki*. This estate with an area

of 117 square miles was resettled in the years 1917 to 1920, and the Government revenue as settled then was Rs. 41,889. There are also considerable areas within the Cuttack town, including the old Cantonment, held *khas* by the Government. The rent of these used to be settled for a term of 15 years but by a recent order of the Government the leases have been extended to 30 years. The next revision of rents will be in 1943. The assets of all the *khas mahals* other than Banki amount to about Rs. 28,000.

There are a few estates, which, although originally part of the Rajwara, have since the time of the Marathas been treated as appertaining to the *moghulbandi* or Crown domain. These estates, viz. Qilas Dompara, Balarampur, Ragri, Chausathipara and Kantajhar are known as *Qilajat* estates and occupy an anomalous position. Man Singh left these estates as part of the Rajwara, but the Marathas resumed them with the exception of Dompara, which was of the nature of a *jagir*. They collected the revenue payable by them direct, but left their former holders in possession; these were all men of the ancient Hindu stock, allied to the chiefs of the Garhjat States who kept up on a small scale the pomp and dignity of independent chiefs. On the British conquest these five estates were on the roll of the temporarily-settled estates. Dompara was restored in 1829 to the position of a permanently-settled zamindari, although liable to be resumed in the event of alienation, and Kantajhar, having been alienated by the original zamindar, has been absorbed into the class of ordinary temporarily-settled estates. The remaining three, Balarampur, Ragri and Chausathipara are still held by the descendants of the original zamindars. At the settlement of 1897 these landlords protested against their estates being treated as ordinary temporarily-settled estates. According to the orders of Government then passed, the estates were treated as temporarily-settled, but were very leniently assessed; and as a matter of policy the Government allowed the revenue previously paid to continue for the term of the settlement. At the present settlement the question of their treatment again came up, and Government laid down that in future settlements the rate of assessment should not be more than half that fixed for the ordinary temporarily-settled estates in Orissa, but that these privileged terms should be subject to the condition that the estates should not be alienated or

partitioned, and that succession should be governed by the law of primogeniture. The percentage of revenue to assets actually fixed with the approval of the Government at this settlement is 15 per cent.

PERMA-
NENTLY-
SETTLED
ESTATES.

The preceding account will show that the revenue system of Orissa differs from that of the rest of the province, inasmuch as the settlement for the Government land revenue is not of a fixed and permanent character, but is made for a term of years only, subject to an increased assessment at the end of every fresh period. This system obtains in the greater portion of the district, but a certain number of estates are permanently settled. When the English conquered the Province, they found a few landowners of a superior class, descendants of noble families or of high officials to whom large estates had been assigned for their maintenance, subject only to the payment of a quit-rent. Such were the Rajas of Kanika and Kujang, who were originally members of the royal family of Mayurbhanj and were established in their possessions about the 13th century A.D. under the Gajapati dynasty, and the Rajas of Aul and Patiya, who were confirmed in their estates by Todar Mal. Besides these, there were a number of estates all along the sea-coast, denominated *garhs* or *qilas*, which were held by chiefs called *Khandaits*, who, like their more powerful neighbours of Aul, Kujang and Kanika, paid but a light *peshkash* or quit-rent, kept bands of *paiks*, and were bound to render military service when called upon to do so : few of these, however, had succeeded in maintaining the privilege of paying only a quit-rent, and most had by slow degrees been reduced to the position of ordinary zamindars. At the time of the British conquest, these petty chiefs made some attempt at resistance, but they gave way on the approach of the troops and were pardoned ; and in recognition of their ancient lineage and to secure their loyalty, Government by Regulation XII of 1805 confirmed in perpetuity the revenue tribute or *peshkash* of Aul, Kujang, Kanika, Bishunpur and Harispur, and secured from enhancement the revenue fixed by the *sanads* granted to the *Khandait* zamindars of Darpan, Sukinda and Madhupur. The latter were adventurers from the north-west, and, though equally independent, were of inferior rank to the chiefs of the sea-coast. They received *sanads* and executed *qabuliyats* for the payment of revenue, while the Rajas of Aul, Kanika and similar estates executed

agreements and received acknowledgments of their right to hold at a quit-rent. There are now 22 permanently-settled estates with a demand of Rs. 99,507.

The permanently-settled estates of Orissa differ from the temporarily-settled estates in an important respect besides that of fixity of revenue. When the Orissa Tenancy Act, which governs the relations between landlords and tenants, was framed and passed, most of the permanently-settled estates of Orissa had not been cadastrally surveyed, and no record-of-rights had been prepared in them, whereas in the temporarily-settled estates there had been such a survey and settlement, and in most of the estates there had been two such surveys. Therefore, though the customary rights of the tenants in the temporarily-settled estates were well known, this was not the case in the permanently-settled estates, and for this reason, though the main provisions of the Act apply to all classes of estates, certain of the provisions were made to apply only in the temporarily-settled estates; and in those respects the permanently-settled estates are still regulated by custom. The proprietors of permanently-settled estates have, however, not been slow to take advantage of any of the provisions applicable to temporarily-settled estates which they considered to their own advantage, and as all the permanently-settled estates have now been surveyed, there is now no reason why the main provisions of the tenancy law should not be the same in all the estates.

The recent settlement has raised the revenue of the temporarily-settled estates from Rs. 10,99,165 to Rs. 14,61,594, i.e. an increase of Rs. 3,62,429. The ultimate *khas mahal* revenue will be about Rs. 69,000. The revenue paid by the permanently-settled estates amounts to Rs. 80,118. The total land revenue of the district is therefore about 16 lakhs of rupees, or more than double what it was a hundred years ago. The increase in the land revenue is, however, even greater than these figures would appear to show, owing to the fact that in the early days of British administration the whole demand could not be collected and remissions had frequently to be given.

GROWTH OF
REVENUE.

Under the rule of the Mughals and Marathas the persons whom we recognized as proprietors of the soil were, in theory at least, officers of Government, responsible to it for the

revenue they collected, and, accordingly, they were not entitled to any remission. But, when droughts or serious floods occurred, the cultivator did not pay his rent, and there is reason to believe that the native rulers recognized such calamities as a valid excuse for short payments, so that the actual collections always fell short of the full demand. When we first conquered the province, the Bengal Regulations were extended to it, and the assessment, which under the Marathas had included a considerable margin for remissions and deductions, became a fixed and invariable debt, which the zamindar had to discharge to the day on pain of losing his estate, in spite of the fact that Cuttack is a district peculiarly liable to suffer from the extremes of drought and flood. The consequences of the attempt to engraft the rigid administration of a permanently-settled province on a country and people wholly unsuited to it, how one after another the estates of the oldest families of Orissa were sold up and passed into the hands of Bengali adventurers, how even these failed to meet the revenue demand, and collections fell as low as 65 per cent and the *paiks* rose in rebellion, has already been described. In later years the Government was more liberal; in the 36 years ending in 1866 remissions of the revenue were made eight times on account of floods, and five times on account of drought; and in this way upwards of Rs. 22 lakhs, or three years' revenue, was remitted. Since 1866 no remissions of land revenue have been made, except a small sum of about Rs. 9,000 in 1921-22, though certain sums have been written off in the Government *khas mahals*. There was in fact no such necessity for relief, as the resources of the district had increased largely, while the land revenue had remained stationary; and at the same time the construction of canals and the improvement of the embankment system had greatly decreased the liability to loss from the vicissitudes of the season.

REVENUE-
FREE LANDS.

The amount which Government derives from land revenue is very much curtailed by the very large number of revenue-free properties. The *pargana* officials of the pre-British period freely exercised the right of gift, and an enormous number of rent-free tenures were thus created. Some of these tenures were resumed at the first regular settlement of the district, but a great many more were confirmed, as it was laid down that all lands which had been held rent-free during the two

previous years, 1802-03 and 1803-04, should continue to be so held during the currency of the settlement. They were to be settled with the persons in possession, on their executing agreements to be responsible for the preservation of the peace, and to abstain from the collection of *sair* or other dues of any kind. It was, no doubt, intended that a careful scrutiny should afterwards be made into the validity of all claims to hold land rent-free under the above rule; but, unfortunately, circumstances prevented this investigation being made until long afterwards. The selection of the two years, 1802-03 and 1803-04, as those during which the possession of land rent-free gave a *prima facie* title to the occupier to continue to hold it on the same terms was peculiarly unfortunate, and resulted in a large loss of Government revenue. During these two years, the Marathas had little leisure to devote to the details of revenue business. Their own superior officers, with no one to supervise them, contented themselves with their own aggrandizement, and did not interfere with their subordinates, so long as the interests of the latter did not clash with their own. The consequence was that every one, from the *amil* to the *muqaddam*, took advantage of the confusion to appropriate the lands under his charge. Documents, if called for, were easily forged in those days, and the burden of proof that they were non-valid was thrown upon the Collector; and by the year 1808 more than a hundred thousand such documents, affecting at least one-eighteenth of the land in the Province, had been filed in the Collector's office. Many of these claims were known to be fraudulent and invalid, but no attempt was made to sift them till 1837, when a systematic enquiry was begun. Large areas were resumed, but even so 73,252 estates covering an area of 128,000 acres, were confirmed as revenue-free. These lands were protected in perpetuity from assessment, with the exception of the lands known as *hin hayati lakhiraj*, which were declared to be liable to resumption on the death of the incumbent. The area of the land recorded as revenue-free during the settlement of 1927 (excluding Qila Patiya) is 134,354 acres comprised in 62,069 estates. It will be seen that each estate is very small, with an average area of 2.17 acres. The proportion of the revenue-free area to the total area assessed to revenue is 16 per cent. This is a large area, but it must be remembered that Orissa is the holy land of

the Hindus, and it supports a very large population of Brahman priests in attendance at an infinite number of Hindu shrines.

The main classes of revenue-free estates are *Debottar*, *Pirottar*, *Amritamanohi*, *Brahmottar* and *Khushbash*. These fall under two main heads, according as they are assigned in trust for a charitable or religious purpose, or are the absolute property of the individual. The first class consists mainly of lands "bestowed on the gods", such as grants to the Hindu idols and Muhammadan shrines known as *Debottar* and *Pirottar* respectively, and *Amritamanohi*, a special term used for grants in endowment of the Jagannath temple at Puri. The management of these religious grants to deities or *pirs* lies with trustees, who are designated *sebaitis* or *marfatdars* in the case of *debottar* properties, and *mutawalis* or *daroghas* in the case of *pirottar* grants. In the eye of the law, these grants are all of the nature of trusts; the land becomes the absolute property of the temple, idol, or monastery. The second class includes lands originally assigned for the support of individuals, such as grants to Brahmans known as *Brahmottar*, and *Khushbash* (i.e. rest content), or a grant of land for a house.

In practice, all these revenue-free grants have largely been treated as the private property of the trustees, and the religious grants have been used for secular purposes, and freely bought and sold, nominally in the interest of the deities. It is not uncommon to find a grant of land belonging to a Hindu idol in possession of a Muhammadan, or land dedicated to a *pir* in possession of Hindus. In most cases the original object of the charitable grant has been entirely lost sight of, and the endowments are misapplied or appropriated; and though there is provision in the law for correcting such abuses, it is no one's business to take action. The annual valuation of these properties is about 3 lakhs of rupees. No less than 76,428 acres are in the direct possession of these revenue-free landlords. 41,755 acres are held from them by raiyats on cash rentals, and 8,656 acres on produce-rentals. The average rent paid for the 41,755 acres held on cash rents at the advent of the settlement of 1927 was Rs. 3-2-0, which was a little higher than the average in the temporarily-settled estates.

Apart from certain zamindars who held proprietary rights under the Mughals or Marathas, and had been recognized as

Rajas of Qilas, or had received permanent settlements of their lands before the commencement of the settlement proceedings of 1837, the present zamindars of Orissa would appear to be descended from all the *talugdars*, rent-collectors, village headmen, holders of resumed *jagirs* and the like, who were found at the time of the British conquest to be paying their revenue direct into the Maratha treasuries, as well as from the holders of the larger revenue-free properties that were resumed and assessed to revenue by us during the early years of the last century. Under these zamindars again a class of subordinate proprietors, or proprietary tenure-holders, was recognized at the settlement of 1837, which was composed for the chief part of village headmen, such as *muqaddams*, *sarbarahkars* and *pursethis*, or the purchasers or recipients of proprietary rights in small plots of land from the zamindars or *muqaddams*, such as *kharidadars* or *shikmi zamindars*.

The above form the proprietary classes, the zamindars paying their revenue direct to the treasury, and the sub-proprietors or proprietary tenure-holders paying their revenue through the zamindars of the estates within which their lands lie. With them also may be included the *lakhiraj bahaldars*, or holders of confirmed revenue-free lands, who possess a permanent right to hold their lands free of land revenue, and are independent of the zamindars of whose estates their lands originally formed a part, except in so far as they are bound under Act IX (B.C.) of 1880 to pay certain cesses through those zamindars.

The tenantry who hold beneath the proprietors or proprietary tenure-holders mentioned above may be divided roughly into seven classes: (1) The *tankidars*, or holders of small areas permanently assessed at a quit-rent; (2) the *Nisfi-baziaftidars*, or holders of resumed rent-free lands assessed for the term of the settlement of 1837 at half rates; (3) the *Kamil baziaftidars*, or holders of resumed rent-free lands assessed at that settlement at full rates; (4) the *thani raiyats*, or resident cultivators whose rents were fixed for the term of the settlement; (5) the *chandina raiyats*, or holders of homestead lands only, whose rents were also fixed for the term of the settlement; (6) the *pahi raiyats*, or non-resident raiyats, who were practically, in most cases, tenants-at-will; and (7) the holders of service and other *jagirs* who held their lands rent-free, either in consideration of services to be rendered, or as rewards for

services in the past. The above list is not exhaustive, but includes all but a few small classes of the tenants of the district.

It will be seen that the landed interests in Orissa, owing to the diversity of their origin, were formerly extremely complicated, but under the existing tenancy law they have been much simplified and can broadly be classified under the following heads :—

1. Proprietors who are directly responsible to the Crown for the revenue of the lands owned by them, and revenue-free proprietors who hold land free of assessment in perpetuity.
2. Sub-proprietors with semi-proprietary rights holding under the proprietors.
3. Tenure-holders with certain privileges with regard to transfer and rates of rent.
4. Ordinary tenure-holders without such privileges.
5. Ordinary cultivators, divided into settled, occupancy and non-occupancy raiyats.
6. Non-agricultural tenants, and in the temporarily-settled area, the *chandinadars* whose rents have been fixed for the term of the settlement.
7. *Jagirdars* or service tenure-holders.
8. Under-raiyats.

Zamindars.

The average size of a zamindari estate in Cuttack (138 acres) is smaller than in any of the districts of Orissa, and the majority of them pay a revenue ranging from Rs. 10 to Rs. 50. The division of the proprietary right by partition, inheritance or sale has been carried to great lengths, and the number of the estates has increased from 4,452 to 8,374 during the last 30 years. There are 100,239 recorded proprietors, or an average of 12 to an estate. The number of petty estates is greatest in the Jajpur subdivision, whereas in central and eastern Cuttack there are some big estates owned by Bengali zamindars. A large amount of property was acquired by Bengali speculators at the revenue sales at Fort William in the early part of the 19th century. The Bengali landlords of the large estates are mostly absentees living in Bengal, who rarely pay a visit to their property, and the management rests with their local agents who are sometimes unscrupulous. The average revenue paid for temporarily-settled estates is Rs. 175 and the zamindars

are little more than a prosperous peasant proprietor class. Statistics show that during the last twelve years there were 1,259 voluntary sales wherein property with a revenue demand of Rs. 66,635 changed hands for a consideration of Rs. 15,84,667, or twenty-four times the revenue demand. Of the 1,259 voluntary sales, 943 were to other zamindars, 165 to raiyats, 137 to money-lenders and 16 to lawyers. During the period of twelve years from 1914 to 1928 there were 481 sales of estates or shares of estates for arrears of revenue, or an average of 40 estates or shares per annum. The aggregate revenue of the estates sold was Rs. 35,173 and the sale price Rs. 4,08,387, or twelve times the revenue. It cannot, therefore, be said that there have been transfers to any large extent. The minimum profit left to the proprietors of the temporarily-settled estates is 47 per cent of the assets, but their income is actually much greater than this. Mutation fees and other perquisites of which Government does not take any share cannot be less than 10 per cent of the rental; the lands in possession of the proprietors are assessed at the average raiyati rental, though the actual profits thereon are likely to be three times as much; and lands newly brought under cultivation remain unassessed during the currency of the settlement.

Fortunately for the district the chain of middlemen ^{Tenure-} between Government and the cultivator is not very long. The ^{holders.} various grades of sub-infeudation inevitable under the Patni Regulations do not exist; in most of the estates only the zamindar intervenes between Government and the raiyat; and even where tenure-holders intervene, they are comparatively few. The various grades of tenure-holders appear to have sprung up in the course of the transition of the Oriya village communities into their modern form, and the prominent feature which distinguishes them from ordinary tenures is that very few of them were created by the zamindars during the last century, and that most of them have grown concurrently with the growth of the zamindari interest and in spite of the opposition of the zamindars. As the superior officers under the Mughal settlement crystallized into *taluqdars*, so the village headmen and accountants tended to become land-holders, and they are now found in the position of proprietary tenure-holders as *padhans*, *muqaddams*, *pursethis* and *sarbarahkars*. The old Hindu name of the village headman was *padhan*, but most of this class were absorbed, under the Arabic form of the name,

as *muqaddams* into the Muhammadan system; while the *pursethis* were also headmen whose duty it was to collect the rents, superintend the cultivation and settle raiyats in the villages. All these were transformed in course of time into tenure-holders; while the zamindars' subordinate rent-collectors, the *sarbarahkars*, gradually acquired separate tenures, just as their masters, having been originally rent-collectors of a higher grade, acquired the substantial interest of zamindars. Some *sarbarahkars* were originally mere servants of the zamindars who collected their rents from the cultivators and enjoyed *jagirs*; some obtained possession of their villages as farmers only, but gradually obtained prescriptive right to the tenure as it descended from one generation to another, while others again were *sardar paiks*, who were bound to attend the summons of the chief and paid rent for that part of their village lands not occupied as *jagir*. Another important class of tenure-holders consists of the *kharidadars*, or purchasers of waste lands. It was customary in the days of the Mughals and Marathas for the superior revenue officers to recognize a species of sale by which those who engaged for the revenue, transferred small areas of waste land and jungle to persons who undertook to bring it under cultivation or to found villages. The areas were supposed to be small and worthless, but fraud was practised in many cases, and valuable lands were frequently alienated for a small consideration.

Shikmi
zamindars.

The *shikmi* zamindars arose mainly in two ways—(1) on the resumption of *jagir* villages where one of the *jagirdars* engaged for payment of revenue, and the others were recorded as *shikmi* (i.e. "included") zamindars paying through the recorded *malguzar* or revenue payer, or (2) owing to land being assigned by the *malguzar* for the support of his near relatives, the latter not being allowed to engage separately.

These sub-proprietors have a position approximating to that of proprietors within their own lands. Until the passing of the Orissa Tenancy Act in 1913, they had fared badly owing to their not being recognized by statutory law. Those sections of the Bengal Tenancy Act which had been extended to Orissa made no mention of any class between proprietors and tenure-holders, and consequently they were in danger of becoming merged in the common body of tenure-holders. The Orissa Tenancy Act, however, clearly defines their status. These sub-proprietors are of two classes. The first and most

numerous class hold their lands on temporary engagements to pay land revenue through a proprietor, or (in a few cases) through another sub-proprietor; and their land-revenue is reassessed in the course of each land-revenue settlement along with that of the proprietors. The sub-proprietors, like the proprietors, are allowed a certain share of the assets for collection expenses and their profits. The second class are known as *tankidars* who pay a quit rent fixed in perpetuity through a proprietor.

During the last century there had been a growing tendency towards uniformity in the incidents attaching to the status of the various kinds of sub-proprietors. Their distinctive origins are reflected in their titles such as *muqaddam*, *padhan*, *shikmi zamindar*, *sarbarahkar*, etc., but under the modern tenancy law all sub-proprietors, with the exception of the *sarbarahkars*, have the right of transfer. Their tenures are hereditary and divisible, but no division of revenue can be made without the consent of the proprietors, nor is any such division binding upon Government without its approval; within their tenures they exercise the same rights as the proprietors exercise in their own estates, and the tenures are liable to sale on default of payment of the revenue. Sub-proprietors other than *tankidars* can hold private, or *nijjot*, lands which are privileged against the acquisition of occupancy rights by tenants, an advantage which ordinary tenure-holders do not enjoy. On recusancy, *shikmidars*, *kharidadars* of the first class and *padhans* are entitled to *malikana* at 5 per cent, and can also claim re-entry at the ensuing settlement, whilst *muqaddams*, and *kharidadars* of the second class are entitled to *malikana* at 5 per cent on recusancy, but not to re-entry. *Sarbarahkari* tenures are not transferable without the consent of the proprietors and are terminated altogether on recusancy.

In the settlement of 1927, 1,128 sub-proprietary tenures have been recorded, of which 614 are *muqaddami*, 268 *sarbarahkari*, 202 *shikmi-zamindari*, and 44 *kothkharida*, etc. The area covered by the sub-proprietary tenures is 131,118 acres, or 12 per cent of the temporarily-settled area. The gross assets of these sub-proprietary tenures were found to be Rs. 3,15,936, and these were distributed in the proportion of 31 per cent to the sub-proprietors, 16 to the proprietors and 53 to Government.

The number of these sub-proprietors has multiplied greatly owing to the operation of the law of inheritance and succession; the number of sub-proprietors recorded at the recent settlement of 1927 is 36,548 as compared with 10,598 at the settlement of 1897, and 1,366 at the settlement of 1837. The undisputed right of succession and freedom of transfer, which the bulk of the sub-proprietors acquired, and which the Government has recognized, are however a fatal gift which has greatly undermined their position. The devolution of property in Orissa obeys the *Mitakshara* law, and the constant splitting up of shares which this system involves has a continued tendency to make the tenure insufficient to support the family. With the multiplication of tenures the sub-proprietors are impoverished, and the zamindar finds the rent collection exceedingly difficult. Disputes and litigation among the co-sharers are inevitable, and very often, owing to the default of one, the property of all is brought to sale. The raiyats are harassed by demands for rent from several separate co-sharers, and the free transfer of land is hampered when recognition has to be obtained from a number of landlords.

Tankidars
or *Tanki*
bahaldars.

Tanki bahaldars have been classed as sub-proprietors by the Orissa Tenancy Act, but their origin and position are peculiar. They are persons who at the British conquest were found paying quit-rents, and whose title to hold their lands for ever on quit-rents was declared valid under the Cuttack Land Revenue Regulation of 1805. The area held by *tanki bahaldars* is very small—only about 490 acres—and the quit-rent is Rs. 10.

Privileged
tenure-
holders.

Among the tenure-holders not of the sub-proprietary classes the main distinction is between privileged and ordinary tenure-holders. The two chief classes of privileged tenure-holders are the *kharidadars* and *baziaftidars*. The *kharida* tenure originated in the practice of the zamindars in the time of the Mughals and the Marathas of transferring small pieces of waste or jungle land to persons who undertook to bring them under cultivation. The *baziaftidars* are the descendants of those persons whose lands were resumed as invalid grants at the first regular settlement of 1837. In order to reconcile them to the sudden change, those who had held for many years were assessed to half rates, while others were nominally assessed to full rates which were however very

low. These rates continued till the settlement of 1897, when an attempt was made to bring the half rates more on to a level with the others. The rents still remained much below the general level of rents. In the settlement of 1927, Government followed the same lenient policy and the rents of these privileged tenures were limited to two-thirds of the average raiyati rent in the village. The rights of these tenure-holders are permanent, heritable and transferable. The total area held by *kharidadars* is 28,100 acres with a rental incidence of Rs. 2-3-0 per acre. The area held by *baziaftidars* is 108,200 acres with a rental incidence of Rs. 1-13-0 per acre as compared with the average raiyati rent of Rs. 3-6-6.

Other tenure-holders have no special privileges such as freedom of transfer. They are primarily persons who have acquired lands from a proprietor for the purpose of collecting rents or bringing it under cultivation by establishing tenants on it. The area held by them is 8,100 acres and the average rent paid by them is about Rs. 2-5-0 an acre.

By far the most numerous and important part of the rural population consists of raiyats of different classes, viz., settled, occupancy and non-occupancy. The raiyat is primarily a person who has acquired a right to hold land for the purpose of cultivating it himself.

The actual cultivators of the soil at the time of the British conquest were found to be divided into two classes, viz., *thani* or resident, and *pahi* or non-resident raiyats. The term *thani* is a corruption of *sthani* or *sthaniya*, i.e. local. The *thani* raiyat had a hereditary right of occupancy in his lands, while the *pahi* raiyat was a mere tenant-at-will. The advantages enjoyed by the former were briefly as follows:—He held his homestead and garden land rent-free; his lands were the best in the village; and he had the preference in the reclamation of new lands. He had communal rights to pasture, fire-wood and thatching grass; he had a hereditary right of occupancy; and he could not be ousted so long as he paid his rent. The possession of these advantages increased his importance in the eyes of his neighbours and strengthened his credit with the money-lender. On the other hand, his rent was much higher than that paid by the non-resident raiyat, and he groaned under the extra contributions and impositions exacted from him by his landlord. These

demands were often so excessive as to swallow up all the profits of cultivation, and the *thani* raiyat, reduced to despair, was often compelled to abandon his home and the doubtful advantages of his position. The *pahi* raiyat paid a much lower rate of rent, but on the other hand, he was liable to be turned out of his holding at any moment.

After the settlement of 1837, the *thani* rents remained almost unchanged, while the rents of *pahi* raiyats, which for years were not regulated by law, rose as the competition for land became keener. At the settlement of 1897 the rents of the two classes were brought approximately to the same level, and as the law now does not distinguish between the rights of the two classes, the names have become obsolete; the *pahi* raiyats have now acquired the status of settled raiyats, with all the privileges which that confers.

In the temporarily-settled tract, there are 586,000 acres held by settled and occupancy raiyats directly under the proprietors. The rental incidence per acre is Rs. 3-7-0. The area held by non-occupancy raiyats is very small, i.e. less than 2,300 acres.

Chandina-
dars.

In the case of the cultivating classes, their homesteads generally form part of their agricultural holdings, but the shop-keepers, artisans, and the labouring classes, who have no arable land in the village, pay rent for their homesteads only, and were formerly called *chandinadars*. The term originally implied inferiority as on this class fell the obligation of supplying forced labour, but this obligation having fallen into disuse, the word *chandina* came to be used for all homestead land paying rent separately from the arable lands. At the settlement of 1897, *chandinadars* were given leases securing to them fixity of rent for the term of the settlement, and under the Orissa Tenancy Act their status has been recognized and defined, and they have been protected from eviction except in execution of a decree for arrears of rent. Save for these express provisions the incidents of the tenancy continue to be regulated by local custom and usage. The term *chandinadar* is strictly applicable only to the *chandinadars* in the temporarily-settled estates; homestead tenancies which exist in the permanently-settled and revenue-free estates are still governed entirely by contract and custom. There are 4,000 acres of *chandina* tenancies.

A *jagirdar* is one who holds lands rent-free or on low rent *Jagirdars*. in return for services rendered. There are two classes of *jagirdars*, those who render service to the landlords and are liable to ejection on failure to perform such service, and those commonly known as *dessheta jagirdars* who perform services to the village community. The system of giving *jagir* land to village servants such as the barber, washerman, carpenter, potter, and astrologer has prevailed in Orissa from ancient times, and their lands have always been exempted from land-revenue. The general custom is for these village servants to receive also small payments of paddy or cash annually from the *raiyats*. The lands given rent-free to the servants of the landlords by the latter are, however, valued for purposes of revenue assessment, and revenue is assessed thereon. In the temporarily-settled estates an area of 4,100 acres has been recorded as communal *jagir*, and 3,000 acres as *jagirs* held for service to the landlord.

Tenants holding, whether immediately or mediately, under *Under-raiyats*. *raiyats*, are classed as under-raiyats. These are locally called *shikmi-raiyats*. In the temporarily-settled *parganas*, there are 56,000 holdings of under-raiyats with an area of 16,500 acres. Most of the under-raiyats have other lands of their own either in the same or a neighbouring village.

In the temporarily-settled area the relations between the landlord and tenant rarely become seriously strained. The passing of the Orissa Tenancy Act has improved the status of the tenants, and the successive settlements have enlightened them as to their rights and obligations to a considerable extent, though there is still a certain amount of ignorance. In the large estates, where the landlords are resident outside Orissa, the local agents of the zamindars are sometimes oppressive. The majority of the estates are, however, very small, and the landlords, being scarcely more than *raiyats* themselves, are not in a position to attempt any oppression. Many landlords combine the function of landlord and money-lender which gives them an undesirable hold on their tenants. On the whole the relations between the landlord and the tenant are satisfactory in the temporarily-settled estates. In the permanently-settled estates, where the tenants still display a remarkable ignorance of their rights under law, the position is not always so satisfactory.

CHAPTER XII.

GENERAL ADMINISTRATION.

**ADMINISTRATIVE
CHARGES
AND STAFF.**

THE administration of the district is in charge of the Collector under the Commissioner of the Orissa Division, and for general administrative purposes it is divided into three subdivisions with headquarters at Cuttack, Jajpur and Kendrapara, each in charge of a Subdivisional Officer exercising the powers of a Deputy Collector in revenue matters. The Banki Government Estate, which lies in the Sadr subdivision, is a quasi-independent charge, the Manager being a Deputy Magistrate and Deputy Collector with his court and a sub-treasury located at Banki, who has criminal and revenue jurisdiction within the borders of the estate. At Cuttack, besides the Collector and Sadr Subdivisional Officer, who may also be a Joint Magistrate, there is a staff of seven or eight Deputy Collectors and five or six Sub-Deputy Collectors. In addition, there is a special Deputy Collector with powers of a Certificate Officer, who is engaged in the collection of canal water-rates under the supervision of the Superintending Engineer, Orissa Circle. In Jajpur and Kendrapara the Subdivisional Officer is assisted by a Sub-Deputy Collector. The District Magistrate and Collector is ex-officio Collector of Customs, and an Assistant to the Political Agent and Commissioner of the Orissa Feudatory States in respect of certain of the Feudatory States. Under the Orissa Tenancy Act the revenue courts exercise jurisdiction in rent suits and certain other relations between landlord and tenant which in Bihar is exercised by the civil courts.

The principal civil and criminal court in the district is that of the District and Sessions Judge, Cuttack. Directly subordinate to him are a Sub-Judge, who is also Assistant Sessions Judge, sometimes an additional Sub-Judge, and three or four Munsifs. A bench of Judges of the High Court at Patna comes on circuit to Cuttack four times a year for the hearing of local appeals, motions and applications both civil and criminal. The District Judge acts as Registrar to this Circuit Court, and one of the Munsifs as Assistant Registrar.

The Police administration is in the hands of the Superintendent of Police assisted by a Deputy Superintendent, and Cuttack is also the headquarters of the Deputy Inspector-General of Police, Southern Range. Other departments are administered locally by the Civil Surgeon, the Superintendent of Excise and Salt, the Income-tax Officer and the District Inspector and Inspectress of Schools. In the Public Works Department there are the Superintending Engineer, Orissa Circle, and three Executive Engineers, two of the Irrigation and one of the Roads and Buildings branch. Amongst officers of other departments, who have their headquarters at Cuttack, are an Assistant Director of Public Health, a Superintendent of Post Offices, and Assistant Directors of the Agricultural and Civil Veterinary Departments. The Port Officer, who is also Customs Officer for the port of False Point, is located at Chandbali. A Munsif and an Assistant Surgeon are stationed at each of the subdivisional headquarters.

After the conquest of Orissa by the British in 1803, two Joint-Commissioners were appointed who at once took measures to place the administration on a satisfactory footing. Courts were established, a land settlement was arranged for, and the Bengal Civil Regulations were extended to the Province. The office of the "Commissioners for settling the affairs of Cuttack" was abolished in 1805, and the Province placed under the charge of a Collector, and of a Judge and Magistrate. For 24 years after this, the whole Province formed but one district, having its headquarters at Puri until 1816, when Cuttack was made the capital. In 1829 the Province was split up into the three regulation districts of Cuttack, Balasore and Puri and the non-regulation Tributary States. After the formation of the district, the criminal and revenue jurisdiction underwent many changes until 1870, when the Baitarni and Dhamra rivers were fixed as its northern limit. The only important change made in its jurisdiction after that year was the annexation to it of Banki in 1881. The subdivisional system was not introduced till 1859, when Jajpur and Kendrapara were for the first time constituted separate subdivisions.

The revenue derived from the district has gradually REVENUE. increased from Rs. 20,28,000 in 1900-01 to Rs. 22,29,000 in 1910-11 and approximately Rs. 32,50,000 in 1930-31. These figures are exclusive of the road and public works cesses, which

are payable to the district board, and which during the same period have risen from Rs. 1,31,697 to Rs. 1,61,939 and Rs. 2,25,282.

**Land
Revenue.**

The land revenue is the principal source of revenue in the district. It amounted to Rs. 11,69,216 in 1901, Rs. 12,65,948 in 1910-11 and Rs. 14,07,339 in 1930-31. Further information on this subject will be found in the previous chapter.

Excise.

The next most important source of revenue is excise, which in 1930-31 yielded a net return of Rs. 9,84,969. Three-quarters of this, Rs. 7,33,740 is derived from the sale of opium, a drug to which the people have always been very much addicted, so much so that in 1813 the Collector reported that the inhabitants of Cuttack might be said to live on opium, and that they could hardly exist without it. The above amount includes Rs. 1,44,450 on account of opium exported to neighbouring feudatory states from the Government Treasury at Cuttack, but even so the receipts from this drug are considerably greater than in any other district of the Province. There is one shop to every 79 square miles, and to every 40,500 of the population and the average consumption per annum is 2.3 seers for every 1,000 of the population, a figure which in this province is only surpassed in Balasore and Puri. The annual expenditure on opium is Rs. 285 for every 1,000 of the population. After opium, the principal source of excise revenue is the duty and license fees on *ganja*, i.e. the unimpregnated dried flowering tops of the cultivated female hemp plant (*Cannabis indica*), the amount thus realized being Rs. 1,72,030 in 1930-31. *Bhang* is very little used, the income from it being only Rs. 11,388, and the total incidence of revenue accruing from hemp drugs is only Rs. 89 for every thousand people. The receipts from country distillery liquor (Rs. 69,565) and *tari*, the fermented juice of the palm tree (Rs. 42,549) form the only other source of revenue which is important. The Oriya is very far from being a hard drinker, and the consumption of liquor is very small, being only 3.2 proof gallons per thousand of the people. The fact that there is only one retail shop to every 300,000 of the people shows how small is the demand for country spirit.

It is interesting to compare the above figures with those of twenty years ago. In 1911-12 the total excise revenue was Rs. 4,17,312, or considerably less than half what it is at the present day, yet this great increase has been obtained *pari*

passu with an all-round decrease in the consumption of intoxicants. Only in respect of *bhāng* has there been any increase of consumption. This result has been attained by the application of Government's fixed policy of "the maximum revenue with the minimum consumption". In practice this has meant, apart from restrictions in the hours of sale, and reduction in the strength of liquor sold, the gradual increase of duty and license fees to the highest point compatible with avoiding a general resort to illicit manufacture and smuggling. To such malpractices Cuttack, with its wild and jungly hinterland in the feudatory states, which would furnish an admirable base for the illicit manufacture and smuggling of all excisable articles, is especially open; and the increases in duty and fees have had to be graduated to a nicety to what the consumers were prepared to endure rather than resort to illegal practices. The following comparative statistics illustrate the working out of this policy :—

			1911-12.	1930-31.
			Rs.	Rs.
Total Revenue	..	..	4,17,312	9,84,969
Number of shops—				
Toddy	..	..	240	116
Country spirit	..	..	26	7
Opium	..	..	78	51
<i>Ganja</i>	..	..	85	51
<i>Bhang</i>	..	..	16	16
Quantities consumed—				
Country spirit	..	..	8,217 L. P. gallons	6,756 L. P. gallons
Opium	..	..	5,496 seers	4,726 seers.
<i>Ganja</i>	..	..	5,214 seers	2,920 seers.
<i>Bhang</i>	..	..	433 seers	1,036 seers.
Retail prices per L. P. gallon or seer—				
Country spirit	..	..	Rs. 7-10-6	Rs. 10 to Rs. 15-5-4
Opium	..	..	„ 50	Rs. 135
<i>Ganja</i>	..	..	„ 22-8-0	„ 80
<i>Bhang</i>	..	..	„ 15	„ 15

An interesting side-light on the gradual weaning of the people from more harmful to less harmful intoxicants is furnished by the fact that in 1911-12, 8,435 bulk gallons of liquor of a strength of 20° under proof were sold and 2,939 gallons at 50° under proof; whilst in 1930-31, the figures were 1,884 gallons at 20° under proof and 10,340 at 50° under proof, and a still weaker liquor at 70° under proof had been introduced of which 576 gallons were sold.

Stamps.

The revenue derived from the sale of stamps comes next to excise in importance, and has risen from Rs. 3,13,367 in 1900-01 to Rs. 6,44,467 in 1930-31. The increase is partly due to the enhancement of the rates of duty in 1920, but the figures afford an indication of the growth of litigiousness in the interval, for whereas the revenue from non-judicial stamps has increased by 61 per cent, that from judicial stamps has increased by 110 per cent.

Income-tax.

Since the income derived from agricultural land is exempt from income-tax, and the district has so little to show in the way of industries or trade, the revenue from this source is naturally small. For the six years beginning 1925-26 the average yield of the tax was only Rs. 1,30,893, and the average number of assessees 542. The increase in the rate of taxation in 1931-32, and the lowering of the minimum taxable limit from Rs. 2,000 to Rs. 1,000, raised the yield to Rs. 2,09,000 and the number of assessees to over 800.

Registration.

There are ten registration offices established under Act XVI of 1908, one at the headquarters station, and the others at Jajpur, Kendrapara, Jagatsingpur, Debidole, Tirtol, Salipur, Banki, Dharamsala and Patamundai. At headquarters the District Sub-Registrar deals with the documents presented there, and assists the District Magistrate, who is *ex-officio* Registrar, in supervising the proceedings of the Sub-Registrars in charge of the other Registration offices. The following table shows the number of documents registered and the total receipts and expenditure at each office during the year 1931 :—

Name.		No. of documents.	Receipts.	Expenditure.
			Rs.	Rs.
Cuttack Sadr	...	4,252	14,135	10,810
Jajpur	...	6,407	9,251	4,833
Kendrapara	...	5,237	8,135	4,374
Jagatsinghpur	...	4,005	4,875	3,868
Debidole	...	2,740	3,601	3,045
Tirtol	...	3,550	4,305	3,557
Salipur	...	6,521	10,909	4,590
Banki	...	2,184	2,900	2,938
Dharamsala	...	4,829	5,945	4,109
Patamundai	...	3,809	4,672	3,137
Total	...	43,534	68,778	45,261

In 1904 the total number of documents registered was only 25,227, and even this was more than double the number of registrations in 1894-95. The large and progressive increase may be attributed partly to the conferment by the Orissa Tenancy Act of absolute freedom in the transfer of occupancy rights on payment of a sum equal to one-quarter of the consideration money to the landlord, and partly to the greater certainty as to the position and status of lands conferred by the survey and record-of-rights. That the raiyat is availing himself freely of his rights is shown by the fact that in 1931, 4,517 entire tenancies and 16,558 part tenancies changed hands, a total exceeded in only two other districts in the province. The fact that the number of deeds of gift (1,128) is 40 per cent higher than that of any other district in the province, whilst in respect of mortgages (10,916), the district only stands ninth in the province, goes to show that the transfers are in the main voluntary. The purchasers are in the vast majority of cases other raiyats.

Details of the judicial staff maintained for the administration of civil justice in the district are given in the second paragraph of this chapter. The jurisdiction of the District Judge and Subordinate Judge extends also over the districts of Balasore and Puri. In 1931 the number of suits decided by all courts was 14,988 regular suits and 1,710 miscellaneous cases. In addition 9,521 execution cases were dealt with.

ADMINIS-
TRATION OF
JUSTICE.

Civil
Justice.

Under the provisions of the Orissa Tenancy Act, rent suits are not decided by the civil, but by the revenue courts. In the year 1931 the number of rent suits instituted was 23,762, which is more than double the figure (11,286) for the whole of the Chota Nagpur Division. There has moreover been a great increase since 1914-15, when the number was 15,168, and it appears that the Oriya raiyat has acquired an independence which makes him unwilling to pay rent until compelled to do so.

Rent suits.

Criminal justice is administered by the Sessions Judge and Additional Sessions Judge, the District Magistrate, Joint Magistrate, if any, and the various Deputy and Sub-Deputy Magistrates at the headquarters and subdivisional stations, and at Banki. Deputy Magistrates generally exercise first-class, and Sub-Deputy Magistrates second-class powers. There are also benches of Honorary Magistrates at Cuttack, Kendrapara

Criminal
justice.

and Banki, one or more of the members of which are authorized to sit singly.

Crime.

The Oriyas are generally quiet and law-abiding people, and for several years past the district has reported fewer offences against the public tranquillity than any other in the province with the exception of Singhbhum. The most prevalent offences are those affecting the human body (murder, assault, wrongful confinement and kidnapping), theft and burglary. A very common form of complaint is that the offender has seized the complainant and forcibly taken his thumb impression on a blank paper, doubtless with the intention of subsequently converting this into a document which can be used against the complainant, or of holding out the threat that this will be done. The soft mud walls of the cottages invite the attention of the burglar, but there is generally little to steal except the ordinary utensils, grain and clothes of the occupants, and the offences, though numerous, are for the most part petty. The comparative freedom of the district from serious crime is in striking contrast to the state of affairs in the early part of last century, when cattle-stealing was prevalent, theft and robbery extremely common, and the district had an unenviable reputation for the frequent occurrence of cases of murder and homicide.

Police.

The unit of police jurisdiction is the thana. The Survey and Settlement department, in the operations that led up to the settlement of 1897, adopted the existing police jurisdictions as units for revenue purposes also. The actual police charges have changed since then, borders have been realigned, and outposts have become independent thanas. A distinction has therefore come to exist between the police thanas and the revenue units which have remained unchanged. Leaving aside the Cuttack town police-station, the district is at present divided into twenty-four police thanas, viz. Cuttack, Tangi, Banki, Baideshwar, Salipur, Mahanga, Kishannagar, Tirtol, Ersama, Jagatsinghpur, Gobindpur and Balikuda in the Sadr subdivision; Kendrapara, Patkura, Patamundai, Mahakalpara, Aul and Rajnagar in the Kendrapara subdivision, and Jajpur, Binjharpur, Dharamsala, Sukinda, Barchana and Korai in the Jajpur subdivision. The regular police force under the control of the Superintendent of Police consists of 6 inspectors, 48 sub-inspectors, 1 sergeant, 66 head-constables and 501 constables. This works out at one policeman to every

5.8 square miles, and one to every 3,319 of the population. The corresponding proportions for the province as a whole are 5.7 square miles, and 2,367 of the population, so that the district is relatively lightly policed. The rural police force consists of 3,039 chaukidars, working under the supervision of 268 dafadars. There are thus 8,122 persons to every dafadar and 716 to every chaukidar.

There is a district jail at Cuttack and sub-jails at **Jails.** Kendrapara, Jajpur and Banki. The sub-jails are merely lock-ups for under-trial prisoners, all convicts except those sentenced to extremely short periods being sent to the district jail. The Cuttack jail has accommodation for 393 (excluding hospital and observation cells), and an average daily population of about 280. Prisoners sentenced to labour are employed on oil-pressing, rope-making, the preparation of coir-fibre and the weaving of carpets and mats. The nett profit from jail manufactures in 1931 was Rs. 1,750-8-0 which works out at Rs. 6-13-0 per head of the prisoners sentenced to labour. In the same year the death-roll was 15.1 per mille of the average strength compared with the provincial average of 18.6.

For the Council of State Cuttack shares with the rest of the Province in electing one Muhammadan and one non-Muhammadan representative; for the Legislative Assembly the representation of the district is more complicated. Orissa as a whole elects two non-Muhammadan members, and those persons qualified to vote as landlords share in the election of the single member representing all the landlords of the Province. Muhammadan voters are grouped with those of the Chota Nagpur and Patna divisions in the election of one member. In the Legislative Council Cuttack has two representatives of its own for non-Muhammadan rural constituencies, and is grouped with the rest of Orissa in the Orissa division Muhammadan rural, non-Muhammadan urban, and Landholders' constituencies, each of which returns a single member.

Constitu-
encies in
the Legis-
lature.

CHAPTER XIII.

LOCAL SELF-GOVERNMENT.

OUTSIDE municipal areas local affairs such as education, sanitation, medical relief, roads, pounds and ferries are managed by the District Board, which has jurisdiction over the whole district, by the subordinate Local Boards, which have been constituted for each subdivision, and by the four Union Boards of Banki, Kendrapara, Jagatsinghpur no. I and Jagatsinghpur no. II.

THE
DISTRICT
BOARD.

The District Board consists of 40 members, 30 being elected and 10 nominated by Government, of whom 3 are officials and 7 non-officials. The principal sources of income of the board are the local cess, and Government grants for specific purposes. The very great expansion of its revenues during the last 30 years is shown by the following comparative statement :—

	1901-02.	1931-32.
	Rs.	Rs.
Local cess ...	44,466	1,91,627
Government contributions	58,009	3,47,443
Total receipts ...	1,14,550	6,30,906

The total receipts have increased more than five-fold during this period. The local cess is levied at the rate of half an anna per rupee of rent from each tenant, and half an anna per rupee on the annual value of his estate from each landlord. The incidence of taxation is less than one and a half anna per head of the population.

The figures of expenditure under some of the main heads are equally interesting.

	1901-02.	1931-32.
	Rs.	Rs.
Education ...	42,053	2,71,726
Medical ...	8,762	91,161
Civil Works ...	69,876	1,46,705
General Administration ...	6,126	28,157

By far the largest portion of the income of the board is spent on education, the percentage of expenditure being 49.07. It maintains 2 middle English schools, 1 middle vernacular, 65 upper primary schools and 154 lower primary schools; and aids 27 middle English, 73 upper primary and 1,403 lower primary schools. Besides this it provides two scholarships of Rs. 20 in the Bihar and Orissa Veterinary College, and grants Rs. 100 for the education of women in the Cuttack Medical School.

The district board maintains altogether 143 miles of metalled roads, and 420 miles of unmetalled roads, besides 416 miles of village roads, the cost of maintenance in 1931-32 being Rs. 249, Rs. 31 and Rs. 9 per mile respectively. The planting of trees along the principal thoroughfares has been undertaken in accordance with a definite programme which has now been practically completed, only 8 more miles of road remaining to be done. The immediate administration of the roads is vested in the District Engineer, and that officer is also responsible for the management and upkeep of 17 inspection and *dak* bungalows and 12 inspection sheds. The board also controls 109 pounds from which it derives an income of Rs. 8,000, and 42 ferries, the lease of which brings in about Rs. 11,000 per annum. For the relief of sickness it maintains 20 dispensaries (19 allopathic and 1 Ayurvedic), and aids 5 others. It also maintains a health officer, with a local staff working under the orders of the health inspectors. 16.45 per cent of its total expenditure falls under the heads " Medical " and " Public health ".

In subordination to the District Board are the Sadr, **LOCAL** Jajpur and Kendrapara Local Boards, the jurisdiction of each **BOARDS.** corresponding to the subdivisional charge of the same name. The local boards consist of the members elected to the district board by the electorate of the area over which the local board exercises jurisdiction, and such additional members, not exceeding one-third of the elected members, as the local Government may direct. These latter are nominated by the district board. The local boards receive allotments from the funds of the district board, and are entrusted with the maintenance of village roads, the administration of primary education and village sanitation, the upkeep of pounds and the charge of minor works of water-supply. Entirely

dependent as they are upon the district board for funds, most of which are ear-marked in advance for particular items of expenditure, the local boards have little scope for initiative, and it is not surprising if the members are inclined to evince more interest in personal rivalries than in the proper supervision and check of the work entrusted to them.

UNION BOARDS.

The four Union Boards are constituted under the Village Administration Act of 1922, and have been given jurisdiction over certain villages or groups of villages where urban conditions are beginning to develop. The members are all elected, the basis of the franchise being the payment of chaukidari tax. They are supposed to look after sanitation, water-supply, roads and schools within their areas. They have powers of local taxation, but so far none have used them. Like the local boards, they derive the whole of their income from the district board, and reproduce in miniature all the worst features of those bodies.

MUNICI- PALITIES.

There are three municipalities in the district, viz. Cuttack, Jajpur and Kendrapara. The total number of rate-payers is 14,385 or 16.3 per cent of the urban population (88,556). In Cuttack the basis of taxation is the annual valuation of holdings, the rate of assessment being $7\frac{1}{2}$ per cent. In Jajpur and Kendrapara a tax on persons according to their property and circumstances is levied, the rates being Rs. 1-1-0 and Re. 1 per cent respectively. Latrine tax varying from $6\frac{1}{2}$ to $7\frac{1}{2}$ per cent is levied in all the municipalities. The total incidence of taxation per head of the population varies from Rs. 1-11-9 in Cuttack to Rs. 1-0-3 in Kendrapara.

Cuttack.

Cuttack was constituted a municipality in 1876, and has a municipal board consisting of 30 members, of whom 24 are elected, 4 ex-officio, and 2 nominated non-official members. The area within municipal limits is approximately 20 square miles, and the number of rate-payers (1930-31) is 9,205 or 14.1 per cent of the population, the lowest percentage in the division. The annual income is about Rs. 1,35,000, of which, in 1930-31, Rs. 52,000 was derived from the tax on holdings and Rs. 44,000 from the latrine tax. Miscellaneous taxes brought in Rs. 16,000, taxes on hackney carriages and motor vehicles Rs. 8,000, and Rs. 9,000 was received from Government in the shape of grants. The incidence of taxation, which is Rs. 1-11-9 per

head, is the heaviest in the district, but considerably below that of Puri (Rs. 2-5-1) or Sambalpur (Rs. 3-8-0). In the same year Rs. 5,400 or 3.4 per cent of the total expenditure was spent on general establishment, Rs. 8,400 or 5.3 per cent on lighting, Rs. 70,800 or 44.0 per cent on conservancy, Rs. 35,000 or 22.5 per cent on public works, Rs. 4,400 or 4.1 per cent on medical relief and Rs. 11,100 or 6.9 per cent on public instruction. In spite of the low incidence of taxation, the collection of taxes leaves very much to be desired, and at the end of 1930-31 over Rs. 40,000, an amount equal to 27 per cent of the current demand, was outstanding. There is no piped water-supply, and the population has to obtain water for drinking from tanks, wells and the Mahanadi and Katjuri rivers. A large proportion of the people are dependent on the latter river, the scanty flow of which causes considerable hardship during the hot weather. The municipality maintains 40 miles of metalled and 25 miles of unmetalled road, a municipal dispensary with a leper clinic attached, a veterinary hospital, 3 upper primary and 5 lower primary schools; and aids 1 upper primary and 2 lower primary schools and 9 *maktabs*. Electric lighting has recently been introduced in some of the streets by arrangement with the Cuttack Electric Supply Company.

Jajpur was constituted a municipality in 1869, and is the Jajpur. oldest in the division. It has a board of 15 members, of whom twelve are elected and three nominated, including two officials. The area within municipal limits is $4\frac{1}{2}$ square miles, and the number of rate-payers (1930-31) 2,234 or 20.9 per cent of the population. The municipality has an income of about Rs. 14,000, of which Rs. 5,800 is derived from the tax on persons, and Rs. 3,400 from the latrine tax. The incidence of taxation is Rs. 1-4-7 per head of the population. 30.06 per cent of its expenditure is upon conservancy, 10.2 per cent on medical relief, 26.04 per cent on public works and 9.3 per cent on education. The municipality maintains one dispensary, and aids one upper primary and 8 lower primary schools. It is responsible for 7 miles of metalled and 19 miles of unmetalled road.

Kendrapara was also constituted a municipality in 1869, Kendrapara. and is administered by a board consisting of 10 commissioners, of whom 8 are elected and 2 are nominated officials. There

are 2,946 rate-payers out of a population of 12,620 or 23.8 per cent. The incidence of taxation in 1930-31 was Rs. 1-0-3 per head of the population. The annual income is in the neighbourhood of Rs. 13,000, of which Rs. 6,700 is derived from the tax on persons and Rs. 5,000 from the latrine tax. 26.3 per cent of its expenditure was spent in 1930-31 on conservancy, 11.0 per cent on medical relief, 25.8 per cent on public works and 9.3 per cent on education. It maintains a dispensary and 7 miles of metalled road.

CHAPTER XIV.

EDUCATION.

NOTHING perhaps illustrates the progress of Orissa under British rule more clearly than the history of the spread of education among its people. The contrast between the low estimation in which early observers held their intellectual capacities and the standard which they have now reached is very striking. Orissa was described as the Boeotia of India, and its people as equally ignorant and stupid; it was cited as a proof of the poverty of their qualifications that the principal official posts had to be filled by foreigners; and the reason assigned for this was that it was impossible to find Oriyas of sufficient ability for positions of responsibility and trust. When we first acquired the Province in 1803, there was scarcely a single native of Orissa in Government employ. The language of the courts and public offices was Persian, and it was not till 1805 that orders were passed that in all written communications with the natives of the Province the subject should be written in Oriya as well as in Persian. This order necessitated the employment of Oriya *muharrirs*, who, though skilful enough with their iron pen and bundle of palm-leaves, were almost helpless when required to write on paper with an ordinary pen. They are said to have been slow in acquiring any facility in this method of writing, ignorant of business in general, and especially of the new English method of revenue accounts. All the best ministerial appointments were consequently in the hands of Bengali clerks, who, attracted by the high pay that had to be offered to procure the requisite standard of efficiency, left their homes in Bengal, and bringing their families with them, settled in the Province and became naturalized Oriyas. Matters appear to have improved, but slowly, as time went on; and in 1821 the Magistrate reported :—"Scarcely a single real Oriya receives a salary more than Rs. 10 per mensem, but several are naturalized Bengalis or Musalmans. I always give a preference to Oriyas, but at this moment I scarcely know a single Oriya possessing qualifications to fit him for being a common *muharrir*."

EARLY
HISTORY OF
EDUCATION.

The backwardness of education in Orissa during the first half century of British rule has been graphically described

by Sir William Hunter: "Government", he writes, "not less than the missionaries, long found itself baffled by the obstinate orthodoxy of Orissa. Until 1838 no schools worthy of the name existed, except in the two or three little bright spots within the circle of missionary influence. Throughout the length and breadth of the Province, with its population of $2\frac{1}{2}$ million of souls, all was darkness and superstition. Here and there indeed a *pandit* taught a few lads Sanskrit in a corner of some rich landlord's mansion; and the larger villages had a sort of hedge-school, where half a dozen boys squatted with the master on the ground, forming the alphabet in the dust, and repeating the multiplication table in a parrot-like sing-song. Anyone who could write a sentence or two on a palm leaf passed for a man of letters. In 1838 Government entered the field, and opened an English and a Sanskrit school at Puri. But these institutions proved altogether unable to make head against the tide of ignorance and bigotry, and presently sank beneath the flood. In 1841 we opened a higher class English school at Cuttack, which after a long series of conflicts and discouragements still survives as the principal seat of education in the Province. During Lord Hardinge's administration two vernacular schools were set agoing in 1845; another one in 1848; and in 1853 an English school was founded in Balasore, while the one at Puri was resuscitated. In 1854 arrived the famous Educational Despatch which was to bring western enlightenment home to the eastern races. Yet for several years afterwards, the increase of schools throughout vast Provinces like Orissa has still to be counted by units. In three great Government estates (Khurda, Banki and Angul) we managed between 1855 and 1859 to set on foot 19 elementary schools; but in the latter year the total number for all Orissa, with close on 3 millions of people, amounted to only 29. The truth is the whole population was against us. Such little success as our schools obtained they owed, not to the Oriyas themselves, but to the Bengali families whom our courts and public offices brought into the Province. Thus, of the 58 Orissa students who up to 1868 reached even the moderate standard exacted by the Calcutta University at its Entrance examinations, only 10 were native Oriyas, while 48 belonged to the immigrant families."

The Brahmans had hitherto held the monopoly of education and kept it strictly in their own hands; and caste prejudice and religious superstition were the great obstacles in the

way of progress. The Government schools were looked upon as infidel inventions; and even as late as 1860, a learned Oriya, on being appointed to the orthodox post of Sanskrit teacher in the Puri school, was excluded for a year or two from the Brahmanical orders, and stormy discussions took place as to whether he should not be formally expelled from his caste. In spite, however, of such opposition, State education slowly, but surely, made its way in Orissa. In 1848-49, there were but 9 schools with a total attendance of 279 pupils, out of a population of 3 million souls; but during the next ten years the schools had increased to 29, and the number of pupils to 1,046; while at the close of the third decennial period, i.e. in 1868-69, there were 63 schools with 4,043 pupils.

Until 1869, however, no machinery existed in Orissa for training teachers, and the lack of qualified instructors was one of the greatest difficulties experienced in establishing and maintaining schools. In that year Government opened a Normal school in Cuttack town, at which young men were instructed with the object of qualifying them to become teachers in their turn. On the conclusion of the course of training, these young men dispersed through the Province, and settling in the villages, did much to bring education home to the ignorant peasantry. Each teacher collected as much as he could in money and rice from the villagers who sent their children to his school, and received a small weekly stipend from Government so long as he discharged his duty properly. A considerable number of schools of this sort were gradually opened, and no measure was more successful in breaking down the baneful influences of caste and popularizing education.

In Cuttack itself the number of schools recognized by Government rose from three in 1856-57 to 50 in 1870-71, and the number of pupils from 168 to 2,755. Between 1871 and 1885 a still more remarkable development took place. In 1872 Sir George Campbell's scheme of educational reform, which extended the grant-in-aid rules to large numbers of hitherto unaided schools, came into effect; and many indigenous institutions being thus absorbed into the departmental system, the number of inspected schools increased by 1875 to 539 with an attendance of 10,196 pupils. The advance of education during the next decade was rapid and sustained, and in 1885 more than 65,000 pupils were receiving instruction

in 4,736 public institutions. In other words, the number of schools and scholars was respectively 95 and 24 times as great in 1885 as it was in 1871. This extraordinary rate of progress could not be maintained; in the ten years ending in 1895 the work was hindered by the failure of crops which occurred in several years, the number of schools falling to 3,590, and the attendance to 55,876. The number of schools had fallen still further to 3,527 on the 31st March 1905, but on the other hand there was a considerable increase in the number of pupils which rose to 65,237; and besides these there were 203 schools, with 1,870 pupils, which did not conform to any departmental standard and were outside the Education department system.

The reduction in the number of schools has continued in recent years, in accordance with the accepted policy of eliminating small, inefficient and unsuitably placed schools, and raising the minimum requirements qualifying a school for a grant-in-aid. Excluding special schools, there are at present 40 secondary and 2,923 primary schools in the district. In 1930-31 77,648 boys and 13,766 girls, or 8.2 per cent of the male and 1.2 per cent of the female population, were attending schools, or altogether 4.4 per cent of the population, which is a higher percentage than any other district in the Province can show.

The spread of education in the district during the last 50 years is strikingly brought out by the figures for literacy at successive censuses.

	<i>Literates per 1,000 of the population.</i>		The apparent falling off in 1911 is due to the fact that a higher standard was fixed in that year. At previous censuses anyone who could read or write at all was returned as literate. In 1911 only those were classed as literate who could write a letter to a friend and read the answer. The increase of literacy amongst women is particularly noteworthy.
	Males.	Females.	
1881	... 57	1	
1891	... 109	2	
1901	... 150	5	
1911	... 132	5	
1921	... 151	8	
1931	... 147	9	

Primary
schools.

There are 2,923 primary schools in the district including 1,136 unaided schools and 156 girls' schools. 219 of these

are maintained by the district board (including 68 schools for the depressed classes and aboriginals), and 1,476 aided. The total number of boys and girls at primary schools exceeds 75,000.

Free and compulsory primary education for boys between the ages of 6 and 10 was introduced in 1925 in the unions of Charchika and Patpur in Banki, with the assistance of a Government grant. The number of schools was at first 15, but partly as a result of concentration, and partly for financial reasons, it has now been reduced to 8, and an upper primary school has been added. 520 boys are attending these schools. The Government grant was discontinued after 1930-31, and the experiment is now being financed by the district board.

Middle vernacular schools, which numbered 11 in 1883-84, have yielded to the universal demand for English education, and there is now only one left. During the same period the number of middle English schools has risen from 18 to 37, of which 3 are managed by local authorities or Government, 31 are aided and 3 unaided. Secondary schools.

The number of high English schools, i.e. schools teaching up to the Matriculation Examination of the Patna University, rose from 4 in 1883-84 to 6 in 1904-05 and finally to 9 in 1931-32; during the same periods the numbers of scholars attending them increased from 454 to 1,401 and 2,178. Of these nine schools, five, viz. the Ravenshaw Collegiate School, the Peary Mohan Academy, the Baptist Mission High School, the Town Victoria High School, and the Moslem Seminary are in the town of Cuttack, two are at the headquarters stations of the Jajpur and Kendrapara subdivisions, and the remaining two at Banki and Kujang. The Ravenshaw Collegiate School, which is now a practising school for the Cuttack Training College, is maintained by the Government; the school at Kujang is a private institution, and the other seven are aided by Government.

The annual cost of the education of each pupil of these schools in 1930-31 was Rs. 49-5-0, of which Rs. 17-15-0 was paid from the public funds.

The only college in the district, or indeed in the whole UNIVERSITY
of Orissa, is the Ravenshaw College at Cuttack. Opened as EDUCATION.
a zila school by Government in 1841, it was raised to a high The
school, with two college classes, in 1868; and was finally Ravenshaw
College.

raised to the status of a first-class college in 1878, when, at the request of the Maharaja of Mayurbhanj, who had made a gift of Rs. 25,000 towards its maintenance, it was named after Mr. T. Ravenshaw, I.C.S., Commissioner of Cuttack, from 1870 to 1878. A law department was added in 1881. The school classes were detached in 1912, and became the Ravenshaw Collegiate School; the Survey school, which had also been attached to it, was separated in 1915 and developed into the Orissa School of Engineering. Extensive new buildings were opened in 1922, and now include an Arts block, Chemical, Physical and Botanical laboratories, and a library erected through the liberality of the Raja of Kanika. There are also large playing-fields, a gymnasium, Hindu and Muhammadan hostels, and quarters for a large number of the staff. A donation of a lakh of rupees by the Maharaja of Mayurbhanj enabled the College to be equipped with electricity in 1925. A pumped water-supply and sewerage system was added in 1929. The number of students has increased from 100 in 1890 to 589 in 1932. The College is affiliated to the Patna University, and teaches up to the M.A., B.Sc. and B.L. standards.

**Special
schools.**

An account of the Orissa Medical School has been given in Chapter IV. The Cuttack Training College was opened in 1923 for the training of secondary school teachers for the Diploma of Education. It is open only to selected candidates, 32 in number, of whom 28 are provided with stipends by Government; the minimum qualification for admission is a B.A. or B.Sc. degree. Classes IV to XI of the Ravenshaw Collegiate School are utilized for demonstration and practising purposes. The school is housed in a two-storied building containing a large demonstration room, lecture room, library, common room and offices; a hostel was added in 1931.

**Orissa
School of
Engineering.**

The Orissa School of Engineering derives both from the old Survey school separated from the Ravenshaw College in 1915, and from the Government workshop at Jobra. It was opened in 1923 to train sub-overseers, but in 1926 its status was raised to the Civil Engineering Subordinate Standard (Overseers). The Mechanical Department was added in 1927 and has sections for carpentry, pattern-making, foundry, smithy, fitting, machining, and motor and electrical engineering. The course for the Diploma of Subordinate C. E. lasts three years with a further year's practical training. The

Mechanical Engineering course lasts five years, after which successful students receive the Industrial Diploma, if they have qualified in both theoretical and practical tests, and the Mistri's certificate, if only in latter. The staff consists of a Principal and 8 teachers, and the institution is controlled by the Director of Industries.

The Baptist Mission maintains a Christian training College for men and women, a **Women's Teacher Training** class, and a school for Anglo-Indian children which teaches up to the Senior Cambridge Examination.

The education of girls, though it still lags far behind that of boys, has made enormous strides in the last thirty years. Female Education. In 1904-05 there were only 64 girls' schools with 1,706 pupils in the whole district; at present there are 149 lower primary schools with 4,062 pupils, 7 upper primary schools with 345 pupils, and 2 middle vernacular schools with 393 pupils. There is also a High English school at Cuttack, the Ravenshaw Girls' School, with over 60 pupils. This has two college classes attached to it which prepare girls for the I.A. Examination of the Patna University.

In addition 8,531 girls attend the ordinary primary schools for boys.

The supervising and inspecting staff of the educational department in the district consists of 1 District Inspector of schools, 1 District Inspectress of schools, 2 Deputy Inspectors, 23 Sub-Inspectors and Assistant Sub-Inspectors, and 1 Inspecting Maulavi. Inspecting Establishment.

CHAPTER XV.

GAZETTEER.

Alamgir Hill.—A peak of the Assia range of hills in the Jajpur subdivision, situated in $20^{\circ} 37' N.$ and $86^{\circ} 14' E.$, and rising about 2,500 feet above the level of the surrounding country. On the summit of a precipice overlooking the stream of the Birupa stands the mosque of Takht-i-Sulaiman, the white walls of which form a conspicuous mark on the hill side visible for many miles to the south. It is a plain building, consisting of a single room, surmounted by a dome, and bearing an inscription in Persian, engraved on three seals of black chlorite which form the frieze, denoting that the building was erected in 1132 A. H. (1719-20 A.D.) by Shuja-ud-din, the Orissa Deputy of the Nawab Murshid Quli Khan.

The tradition connected with the building of the mosque runs as follows :—On one occasion, the Prophet Muhammad was winging his way in mid-air on his celestial throne, accompanied by a large retinue. When the hour for prayer arrived, he alighted on Naltigiri. But the throne being too heavy for the hill, and the hill too small for the retinue, the latter commenced to shake and sink. The Prophet became annoyed, pronounced a curse upon it, and repaired to the precipitous rock upon which the mosque now stands. There he offered his prayers, and the print of his knees and fingers is pointed out on a stone which is preserved in the shrine. His followers rested on the four peaks. No water being obtainable on the hill, the Prophet struck the rock with his wand, and a bubbling spring of pure water at once rose up. Tradition also relates that when Shuja-ud-din was marching to Cuttack he encamped at Irakpur, where he heard the voice of prayer chanted from the top of the hill at the distance of six miles. His followers became anxious to visit the shrine, but Shuja dissuaded them, making a vow at the same time that, should his march prove successful, he would come back and pray on the spot with them. On his victorious

return, Shuja constructed a road up the hill about two miles in length, and built the mosque which still bears his inscription.

The ascent is from the east and consists of a steep road paved with rough stones, which still retain some semblance of steps. In front there is a platform surrounded by a thick wall with a gate. Towards the west, high rugged peaks overlook the building; on the north, a high terrace has been raised for the reception of ascetics and pilgrims. On the southern side of the mosque, on the edge of the precipice, is the sacred tank, a small shallow hole cut in the rock, about 10 feet by 8, and 3 feet deep. It is now dry, but the legend is that it was formerly a spring of water formed by Sulaiman striking the rock with his staff. The tank was said to have been full of water till Shuja-ud-din's time, when a soldier of his army having outraged a female pilgrim to the shrine, the spring dried up and has never flowed since. The soldier and the woman were buried at the foot of the hill, and every passer-by throws a stone on the grave, which has thus become a huge cairn by the roadside. The expense of the shrine is covered by the profits of an endowment of sixty acres of land granted by Shuja-ud-din. The mosque is lighted every evening, and the rocks resound with the voice of prayer every morning and evening when the people of the neighbourhood offer homage at the shrine. The hill on which this mosque stands is called by the Hindus Baradihi or the great site. The old Hindu name of the Alamgir peak was Mandaka, from the village of that name at its foot, where the ' *mandu* ' or primitive ordeals by means of fire, boiling oil, etc. were held in the ancient Hindu period.

Alti Hills.—A name sometimes applied to the Assia hills owing to the fact that many of the peaks lie in *pargana* Alti. See Assia Hills.

Amravati Hill.—A hill in the Assia range, which is now known as the Chatia hill, from its proximity to the village of that name on the Cuttack-Balasore Road. See Chatia Hill.

Assia Hills.—A range of hills in the Jajpur subdivision, lying between 20° 35' N. 86° 14' E. and 20° 39' N. 86° 20' E. None of the hills are of any great height, the highest not

exceeding 2,500 feet in elevation, but they are of great interest on account of the sanctity of the shrines which crown their summits and the ruins of ancient temples, forts, sculptures, etc. which they contain. The ancient Hindu name for these hills was Chatush-pitha, subsequently corrupted into Char-puli, or the four seats or shrines, a name derived from the four highest peaks of the chain, the Alamgir hill mentioned above, the Udayagiri, the Baradihi hill and the Naltigiri hill.

Aul.—One of the six great ‘ Qilas ’ of Orissa, the proprietors of which were granted the right of paying a quit-rent, exempted from enhancement, by Regulation XII of 1805. This Qila covers an aggregate area of 133 square miles and comprises the *parganas* of Derabisi, and Utihar Kutubshahi. It was granted in the reign of Akbar to a descendant of the Hindu sovereign Telinga Mukunda Deva, and has continued up to the present day in the possession of his heirs. At the time of the British conquest the estate was held by Raja Rama Krishna Deva, with whom it was settled on a permanent annual quit-rent or *peshkash* of Rs. 28,139-2-7. His son, Prataparudra Deva, having impaired his mental faculties by dissolute habits, became incapable of managing the estate, which was in consequence taken under the management of the Court of Wards. The estate remained under the management of the Court till 1847 when Raja Prataparudra's son, Padmanabh Deva, having attained his majority, took charge of the estate with an accumulated treasure of Rs. 85,000. The young Raja, however, soon got into the ways of his father, and so heavily encumbered the estate with debts that it remained under the attachment and administration of the Civil Court for sixteen years, from 1868 to 1883, when it was released.

Padmanabh Deva was succeeded by his son Jadunath Deva whose high-handed proceedings and oppression of his tenantry attracted the notice of Government and led to the initiation of survey and settlement operations of the Qila which had till then no record-of-rights. One of his sons was given in adoption to the Kanika Raj family, and is the present Raja. On the death of Jadunath Deva, his eldest son, Pitamber Deva, succeeded to the estate in 1905.

In 1911, the management of the estate having been adversely criticised by the Revenue authorities, Government

lent the services of an experienced officer as Manager till 1916, and after a relapse into mismanagement, in 1921 the Court of Wards took charge. At that time the cash balance was only Rs. 29 and there were legal liabilities of over a lakh of rupees. Five years' management by the Court resulted in freeing the estate from debt and the accumulation of a surplus of Rs. 19,275, after effecting improvements at a cost of Rs. 1,67,000. The estate was released in 1926.

The two *parganas* of the estate differ from each other materially in physical aspect and agricultural conditions. The *pargana* Derabisi, about 47 square miles, is mostly irrigated from the Patamundai and Kendrapara canals, and the whole of the irrigated tract produces good crops. The main portion of the *pargana* Utiyar-Kutubshahi was protected by a circular embankment 27 miles in length, commonly known as the Aul ring bundh. This was reconstructed during the Court's management at a cost of Rs. 75,793, but owing to the continuous raising of the land outside the embankment by deposits of silt over a long period of years, and the consequent necessity of raising the embankment ever higher and higher, it was found impossible to maintain it, and the expert flood inquiry committee of 1928 recommended that it should be abandoned and the sunken area within allowed to silt up to the surrounding level. The entire *pargana* covering about 86 square miles is at present therefore more or less subject to the disastrous effects of flood every year from the rivers Brahmani and Kharsua.

The Qila was originally surveyed in 1892 and complete records-of-rights prepared in 1901. These have since been twice revised, once in 1909, and again in 1926 in course of the general operations of the revisional settlement of Orissa. The cultivated area of the estate according to the recent settlement is 67,784 acres which represents about 80 per cent of the total area of the estate. Of this 6,978 acres or about 10 per cent is twice cropped, and 10,973 acres or 16 per cent is irrigated. Of the total uncultivated area 5,655 acres or 32 per cent is returned as culturable waste and the rest as not available for cultivation, being covered with sand and water, etc. The total rent-paying area in the Qila is 59,863 acres or 70 per cent of the total, out of which 2,778 acres pay rent in kind and the rest cash rent totalling Rs. 1,23,436.

12,719 acres are held by tenants free of rent. The average village rate in the Qila is Rs. 2-7-0 per acre.

Banki.—A large Government estate, covering an area of 117 square miles, and surrounded by the Feudatory States of Orissa, among which it was once included. It is bounded on the north by the Feudatory States of Baramba, Tigiria, and Athgarh, and on the south by the Government estate of Khurda; its eastern boundary is the estate of Dompára, while the Feudatory State of Khandpara lies to the west. There are few hills in Banki itself, but it is surrounded by the hilly ranges of the Feudatory States, the outline of which forms a picturesque back-ground and presents some magnificent scenery. The Mahanadi passes through it from west to east, and the greater part of the estate lies low and is submerged in high floods to a considerable depth. Formerly there were no embankments on the Mahanadi, but only jungle extending along both its banks; and it was not till Government took over the management of the estate that the jungle was cut and embankments were constructed. These protective works, however, have gradually broken and been abandoned, with the result that the low-lying country is exposed to flood, and some lands which were formerly cultivated have been covered with sand and thrown into waste. The country is generally open, and there is practically no forest, except for a narrow strip of *sal* about five miles long, which stretches along the Khurda boundary to the south.

Until 1839 Banki was a Tributary State, the property of the Raja of Banki. In that year the Raja, having been convicted of murder and sentenced to imprisonment for life, was dethroned, and his territory was confiscated by Government. From 1839 to 1882 Banki was under the management of the Superintendent of the Tributary Mahals, but in 1882 it was annexed to the Cuttack district, and it has since been treated as a Government estate. It is in charge of a Deputy Collector, who is vested with second-class magisterial powers and with those of a Deputy Collector for the trial of rent suits. It contains a sub-treasury, and for the purposes of administration it is practically, though not formally, a subdivision.

The estate was settled in 1844, after measurement, for 10 years, and again, after measurement, for 14 years from

1854, but the term of this settlement was extended to 1888 in consequence of the Orissa famine of 1866. Resettlements were made in 1888 and 1905, and that now in force in 1917—20. By the current settlement the total Government revenue was fixed at Rs. 41,889 as against Rs. 28,820 at the settlement of 1888. The apparently large increase is due in part to the great extension of cultivation, the area under cultivation having increased from 37,210 acres in 1888 to 42,450 (of which 10,404 acres are twice cropped) in 1917. 32,700 acres are shown as uncultivated, of which 27,534 acres are not available for cultivation.

A very noticeable feature of the management of the estate is the work done by the *sarbarahkars*. In Banki they hold the same position as in Khurda, i.e. they are farmers and public accountants, and are responsible for the total demand due to Government, whether they collect it from the raiyats or not. They have no rights beyond those conferred on them by their engagements, and are liable to dismissal by the Collector for misconduct. In making appointments to the posts of *sarbarahkar*, a relative of the deceased or retired *sarbarahkar* who has rendered good service, is preferred, provided he is otherwise qualified. They receive a commission varying from 10 to 20 per cent of the demand, and are also allowed to take the profits of new cultivation for the term of the settlement. Besides this, a remuneration of 5 per cent on the collections is granted every year to each *sarbarahkar* who is found to have kept the settlement records in proper order and up to date.

Barabati.—The old name of the fort at Cuttack. *See* Cuttack town.

Baradihi Hill.—The highest of the four peaks of the Assia range situated about 16 miles to the south-west of Jajpur. The old chieftain of the Qila had his seat at the foot of the hill, and the remains of the fort may still be seen; but though the main gate is still standing, the building is in ruins and overgrown with jungle.

Chateswar.—A village about 12 miles to the north-east of Cuttack, in the Salipur thana of the headquarters subdivision, containing a temple of Siva, in the porch of which is a stone slab with an inscription in the Kuthila character stating

that the temple was built by order of the king Ananga Bhima Deva (1119—21 A.D.).

Chatia Hill.—A hill in the Jajpur subdivision situated in $20^{\circ} 37' N.$ and $86^{\circ} 4' E.$, near the village of the same name on the Cuttack-Balasore road. On the east side of the hill are the ruins of a fort, called Amravati, which is rectangular in shape, with massive walls of laterite and one gate facing east. Within the ramparts is a high platform accessible by a flight of steps, which marks the site of the old *zanana* rooms, but a number of broken pillars and capitals alone remain to show the proportions of the building which once stood there. On a smaller platform stood a temple now fallen, and the only remains of the edifice are the images of Indra and his wife Indrani, life-sized figures cut on solid blocks of slate-stone and carved with some taste. According to the local tradition, Amravati fort was one of the five *katakas* or citadels of the old Hindu kings of Orissa and covered an area of two square miles; it is said that the great wall which surrounded it was demolished by the Public Works Department for the sake of the stone, which was used for the construction of the Orissa Trunk Road. On the western side of the hill is a small cave with a verandah in front, which is probably the work of Jain ascetics. The cave is without ornamentation, and has never been thoroughly explored.

Chaudwar.—A village on the north bank of the Birupa river, opposite the town of Cuttack. It contains the ruins of an ancient fort, the walls of which are still traceable. Chaudwar is believed to have been for a long time one of the chief seats of the power of the old Hindu kings of Orissa; a copper-plate grant of the 6th or 7th century A.D. was dug up here some years ago; and tradition asserts that the walls of the fort were two miles long on each side. The enclosure still contains numerous mounds and several temples.

Cuttack subdivision.—Headquarters subdivision of the district, lying between $20^{\circ} 2' N.$ and $20^{\circ} 42' N.$, and $85^{\circ} 20' E.$ and $86^{\circ} 44' E.$ and extending over 1,562 square miles. Its population was 1,035,275 in 1901 and 1,987,991 in 1931. The west of the subdivision lies on the fringe of the Chota Nagpur plateau, while on the east it is bounded by the Bay of Bengal. The central tract is a fertile and densely populated plain intersected by the Mahanadi and its offshoots. The

density for the whole subdivision is 696 persons to the square mile. It contains one town Cuttack (population 65,263), its headquarters, and 2,526 villages.

Cuttack town.—The capital of the province of Orissa, and the administrative headquarters of the district, situated 253 miles from Calcutta in 20° 29' N. and 85° 52' E. The town stands nearly at the apex of a triangle, the two sides of which are formed by the river Mahanadi and its branch, the Katjuri. It is a trade centre of some importance and is well provided with means of communication. The Orissa Trunk Road passes through it, and the principal roads in the district converge on it; besides this, it is served by the Mahanadi and is connected by canal with Chandbali and False Point. There is also a railway station of the Bengal-Nagpur Railway at Chauliagunj on the outskirts of the town. Cuttack is not only the headquarters of the district but also of the civil division of Orissa, of the Orissa Circles of the Public Works, Agricultural and Civil Veterinary Departments, the Southern Police Range, and of the Orissa Division of the Education Department; and as such, it contains the offices of the Commissioner, the Deputy Inspector-General of Police, the Superintending Engineer, the Executive Engineers in charge of the three divisions of the Orissa Circle, Assistant Directors of Public Health, Agriculture and the Civil Veterinary Department, and the Inspector of Schools. Besides these offices, those of the district staff, the jail, and the various courts, the chief public works are the stone embankments by which the town is protected from inundation, the railway bridge across the Mahanadi, and the great anicut on that river which feeds the canals. The town also contains a General Hospital, three churches, one for Roman Catholics, another belonging to the Church of England and a third to the Baptist Mission, a convent and several educational institutions, of which the most important is the Ravenshaw College. The population which was 47,186 in 1891 and 51,364 in 1901 fell to 51,007 in 1921 and rose again to 65,263 in 1931. Of the total number of inhabitants, 51,913 are Hindus, 9,861 are Muhammadans and 2,373 are Christians, and there are also a few Jains and members of the Brahmo Samaj.

The town itself extends from the Mahanadi on the north to the Katjuri on the south, and covers a large area amounting

to about 20 square miles. It is practically divided into two parts—the bazaar straggling along the bank of the Katjuri and extending northwards, and the former cantonment area which runs along the southern bank of the Mahanadi. The houses of the principal officials extend along both sides of the road running parallel to the latter river, and those on the northern side of the road command a magnificent view over the broad waters of the Mahanadi with a long chain of wooded hills lining the horizon. On the southern side of the town are the Commissioner's and Collector's offices, built on a huge stone embankment, which protects the bazaar from the great floods of the Katjuri; the view across its wide bed, set off by the undulating hills to the south-west, is scarcely less attractive than that across the Mahanadi.

The picturesque appearance of Cuttack attracted the notice even of the staid Muhammadan historians, and the author of the *Sair-ul-Mutakharin* gives the following description of it:—"The ground wherein the fortress and the city of Cuttack are seated is an island surrounded by the waters of the Mahanadi and those of the Katjuri. The parts that are washed by the two rivers are surrounded by a strong wall with squared stone serving as a dyke or mound against their inundations. For those rivers which are fordable for one-half of the year swell so much in the rains that the Mahanadi becomes a mighty stream of about 2 *kos* (or 5 miles in breadth), and the Katjuri of half as much. The fortress of Barabati is seated on the Mahanadi, and is about 3 *kos* in circuit; it is built of stone, brick and mortar with a great deal of art. But the city of Cuttack itself stretches on the lesser river at about 2 *kos* from the citadel. The Governor's palace and the houses of the nobility and principal citizens (which in general affect the waterside, and are mostly seated on the said mound) rising by five and ten yards above the mound, cut a handsome appearance; and they overlook on both sides of the water a fine extensive plain that stretches from 4 to 5 *kos* around. The horizon is bounded by a forest of beautiful, lofty trees, that extend as far as the eye can reach, and line the bottom and sides of a chain of high mountains that seem to reach the very sky; and this beautiful prospect, with its triple circle of beauties, is enjoyed by the inhabitants the whole year round."

According to the legendary account preserved in the History of Madala Panjika, or palm-leaf records of the temple of the town. Jagannath, the founder of Cuttack was Makar Kesari, a warlike prince who reigned from 953 to 961 A.D. Perceiving the military strength of the tongue of land where the Mahanadi first divides into its several branches, he is said to have protected it from inundation by means of a masonry embankment several miles long. The same chronicles state that Matsya Kesari, a monarch who reigned in the middle of the 11th century, strengthened the new capital by an outlying fortress on the southern bank of the river, and thus commanded the various channels into which the Mahanadi, the highway between the hills and the plains, bifurcates. Stirling gives practically the same account. After explaining that the etymology of the word Cuttack is *Katak*, signifying in Sanskrit a royal residence or seat of empire, and that it was distinguished from four other *Kataks* by the designation Biranasi or Benares, he states that it became a capital city as early as the end of the 10th century, during the reign of the Kesari princes, and that Chaudwar, Jajpur and Pipili divided with it at different periods the honour and advantage of accommodating the Hindu Court of Orissa. The account of the foundation of Cuttack by the Kesari kings cannot, however, be regarded as authoritative, as the chronicles of those kings given in the Madala Panjika are to a large extent unhistorical; but there can be no doubt that Cuttack was the capital of the indigenous kings of Orissa from a very early date. For this it was admirably adapted by the natural strength of its position which rendered it a safe place of defence. To quote the Sair-ul-Mutakharin :—" As this spot of fortunate ground is surrounded on every side by the waters of two rivers, such a situation renders it very strong; and should any enemy attempt to besiege the place by coming to an understanding with the neighbouring zamindars, and the siege should chance to be protracted until the beginning of the rainy season, he would find it difficult to subsist, and his convoys would be greatly at a loss how to approach his camp. But independently of that, the country round this island, and indeed throughout the whole of Orissa, is very difficult ground, especially about the rainy season, when it becomes so very much intersected by frequent rivers and endless deep torrents, that an enemy would find it impossible

to reach the end of his journey." The natural strength of Cuttack was still further increased by Mukunda Deva, the last Hindu king of Orissa, who built the great fort of Barabati on the southern bank of the Mahanadi.

On the subjugation of Orissa by Kala Pahar, the Afghan General of Sulaiman Karani, the fort passed into the hands of the conquerors, who did not however remain long in possession. In 1575 A.D. Daud Khan, the last Afghan king of Orissa, was defeated by Todar Mal and Munim Khan at Mughalmari, and taking refuge in Cuttack executed a treaty there, by which he was allowed to retain Orissa on ceding Bihar and Bengal to the Emperor Akbar; but in 1576 his disastrous defeat and death at Rajmahal left the way clear for the Imperial forces, and Cuttack became the capital of the Mughal *Subadars*. In the troubled times which followed during the viceroyalty of Ali Vardi Khan, it again became the centre of fierce conflicts. Ali Vardi Khan first had to wrest it from the grasp of Murshid Quli Khan, the brother-in-law of his predecessor, and then, when the people rose in revolt against the oppressions of his Deputy, he was forced to march again to Cuttack with an army of 20,000 men. Mirza Baqr Ali Khan, who had assumed the government, was encamped with his troops and artillery on the southern bank of the Mahanadi, but Ali Vardi Khan's soldiers, plunging into the river, quickly crossed to Cuttack at the Jobra *ghat*, and dispersing the opposing forces entered the town in triumph (1741 A.D.). The Marathas now, however, began to overrun Orissa, and for the next ten years we have a confused record of marchings and counter-marchings, in which Cuttack was the prize for which the contending parties struggled. Not long after the departure of Ali Vardi Khan, Raghuji Bhonsla suddenly burst upon Orissa and appeared under the walls of the fort, where the garrison sustained a vigorous siege for about a month. The citadel was, however, ill-furnished for a long defence, provisions ran short, and at last the commandant capitulated and the Marathas took possession of the city. In 1746 Raghuji Bhonsla, who had in the meantime been busy with his raids in Bengal, retired to Berar, and next year Ali Vardi Khan determined to conduct a vigorous campaign against the Marathas in Orissa and to recover the capital. Reinforcements were sent from Berar by the Marathas, but Ali Vardi Khan, making a forced march, compelled them to

surrender the fort after a siege of 15 days. It soon passed again into the hands of the Marathas on the cession of Orissa to them in 1751, and they held undisputed possession of it till the advent of the British in 1803. The Marathas had shut themselves up in the fort, and the small invading force entered Cuttack without meeting any opposition on the 8th October 1803. They at once started to erect batteries and make the approaches. The fort, strongly built of stone and surrounded by a wet ditch, varying from 35 to 135 feet in breadth, had only one entrance, with a very narrow bridge leading over the ditch to it. The batteries were completed by the night of the 13th October, five hundred yards from the south face of the fort, and they commenced firing early the following morning. By 11 A.M. all the defences had been knocked to pieces, and the guns of the fort silenced. The storming party, consisting of a detachment from His Majesty's 22nd Regiment and the Madras European Regiment, 400 sepoys from the 20th Bengal Native Infantry, the 9th and 19th Madras Native Infantry, and some artillery, with a six-pounder to blow open the gate, advanced to the attack. The bridge was quickly passed, under a heavy fire from the fort, but it was nearly forty minutes before the wicket was blown sufficiently open to admit one man. The Europeans passed in singly, but with such rapidity, that, notwithstanding the resistance at the inner gates, they entered with the garrison, who after a very severe loss abandoned the fort.

The fort of Barabati was built by Mukunda Deva, the last Hindu king of Orissa (1560—68), and was apparently a castle of grey granite with nine lofty courts. In the *Ain-i-Akbari* it is described as a fine palace consisting of nine courts, the first of which was used for the elephants, camels and horses; the second was a store-house for the artillery and military stores, and also contained quarters for the guards and other attendants; the third was occupied by porters and other watchmen, the fourth by artificers, and the fifth by the kitchens. The sixth contained the Raja's public apartments, the seventh was used for the transaction of private business, the eighth was the *zanana*, and the ninth contained the Raja's own sleeping apartments. It was here that the Mughal *Subadars* held their court, and fortunately we have a description of its splendour in the account of William Bruton, who visited it with Ralph Cartwright in 1633. He was much

impressed with the magnificence and pomp of the stately Court of Malcandy, as he calls it, Malcandy being apparently a corrupt form for Mukunda Deva. "The English travellers," writes Mr. Wilson in "The Early Annals of the English in Bengal," "reached the palace from the east over a long narrow causeway, and were conducted through a labyrinth of buildings to the court of public audience. Here Bruton and his companions awaited the coming of his Highness, and found themselves objects of much curiosity. At last the word came that the nabob was approaching. The place was forthwith spread with rich carpets, gold pillars being placed at the corners to hold them down, and in the middle a red velvet bolster for his Highness to recline against. Then, preceded by his brother, a comely man carrying a sword, accompanied by fifty grave-looking courtiers, and greeted on all sides with low prostrations, came the Moghul Governor, a fair and stately personage, leaning his arms upon two of his attendants. This was Agha Muhammad Zaman, a Persian grandee, born in Tahran, who was in high favour with the Emperor Shah Jahan, and had recently been sent to Orissa to wage war against the King of Golkunda. He very affably inclined his head towards Mr. Cartwright, who was presented to him by Mirza Momin, and, slipping off his sandal offered 'his foot to our merchant to kiss, which he twice refused to do, but at last he was fain to do it'. Then the nabob and the whole court sat down cross-legged. The English merchant brought forth his presents, and made his requests to the nabob for trading privileges. But by the time he had reached the end of his story, the King's almoner gave the signal for prayers, and the whole company knelt down with their faces towards the setting sun. Prayers being ended, and business laid aside, the palace was soon ablaze with countless wax tapers which the attendants lighted up with great ceremony."

Even as late as the beginning of the 19th century, the citadel must have been an imposing sight, to judge from Stirling's description of it. "The only monument" he writes "of the Gajapati Rajas which their ancient capital exhibits is the fortress of Barabati, built probably in the 14th century by Raja Ananga Bhim Deo. Some ascribe its erection to Telinga Mukund Deo, the last of the independent sovereigns of Orissa, and others refer it back to a period as early as the times of the Kesari dynasty. However that point may stand, its square sloping towers or bastions, and general style, bespeak

clearly a Hindu origin. The Muhammadan or Maratha governors added a round bastion at the N.-W. angle, and constructed the great arched gateway in the eastern face, which alterations are alluded to in a Persian inscription, giving for the date of the repairs and additions, the fourth year of the reign of Ahmed Shah, or A.D. 1750. The fort has double walls built of stone, the inner of which enclose a rectangular area measuring 2,150 by 1,800 feet. The entrance lies through a grand gateway on the east, flanked by two lofty square towers, having the sides inclining inwards, from the base to the summit. A noble ditch faced with masonry surrounds the whole, measuring in the broadest part two hundred and twenty feet across. From the centre of the fort rises a huge square bastion or cavalier supporting a flag-staff. This feature, combined with the loftiness of the battlements on the river face, gives to the edifice an imposing castellated appearance, so much so that the whole when seen from the opposite bank of the Mahanadi presented to the imagination of Mr. La Motte, who travelled through the province in 1767 A.D., some resemblance to the west side of Windsor Castle. No traces of the famous palace of Raja Mukund Deo nine stories in height, mentioned in the *Ain-i-Akbari*, are to be found within the walls of fort Barabati but the fragments of sculptured cornices, etc. which have been dug up at different times, and more especially a massive candelabra or pillar furnished with branches for holding lights, formed of fine grey indurated chlorite or pot stone, are probably the remains of some large and splendid edifice."

There is little in the present appearance of the fort which answers to the above description. The Public Works Department, in early vandal days, stripped the old buildings for the sake of their stone, which they used for the False Point lighthouse and other buildings as well as for metalling the roads, and thus converted the fort into an unsightly series of mounds, and the ground within the moat into a wilderness of stone pits. The old qila now contains the buildings of the Station Club. The great arched gateway to the east and an old mosque, named after Fathi Khan Raham, are the only objects of antiquarian interest which remain intact.

In spite of all its attractions the Mughal and Maratha Lalbagh. Governors did not reside in the fort, but in a palace at Lalbagh on the bank of the Katjuri. According to William Bruton,

“ although the palace of the nabob be so large in extent and so magnificent in structure, yet he himself will not lodge in it, but every night he lodged in tents, with his most trusty servants and guards about him; for it is an abomination to the Moguls (which are white men) to rest or sleep under the roof of a house that another man hath built for his own honour. And therefore he was building a palace, which he purposed should be a fabric of a rest and future remembrance of his renown: he likewise keepeth three hundred women who are all of them the daughters of the best and ablest subjects that he hath ”. The Commissioner's residence now occupies the site of this palace.

Qadam
Rasul.

The only other building of antiquarian interest in the town is the Qadam Rasul, which Stirling describes as an antique-looking edifice standing in the midst of a fine garden, which contains certain relics of the Prophet commissioned from Mecca by the Nawab Nazim Shuja-ud-din Khan, or his son Muhammad Taqi Khan, the latter of whom lies buried within the enclosure. From an inscription *in situ* it appears that it was built by the Nawab Shuja-ud-din Muhammad Khan in the reign of Shah Alam (1707—12). It is an ordinary brick building covered with whitewash, of no special merit, inside which the foot-prints of the Prophet are kept in a basin of water. This holy water is given to persons visiting the shrine and is used for curing diseases. The building is pleasantly situated in a large garden, where there are many tombs of former custodians of the shrine; it is supported by a large endowment and is well looked after.

Cemetery.

The cemetery contains tombs with inscriptions dating back to 1808, the most interesting of which is one, dated 1811, with an epitaph to the memory of one Turner, an artificer, which runs:—

“ My hammer and anvil lie declined,
My bellows too have lost their wind,
My time is spent, my glass is run,
My last nail's drove, my work is done.”

Darpan.—Qila Darpan is a permanently-settled estate paying land revenue of Rs. 7,307-5-0 fixed in perpetuity under Regulation XII of 1805. Covering an area of 100 square miles it lies entirely within the Jajpur subdivision of the district. At the time of the British conquest, Raja Gulzar Hussain was

the proprietor, with whom permanent settlement was effected by the Board of Commissioners. In 1823, his son Akbar Hussain succeeded him, and on his default the estate was sold for arrears of revenue and purchased by Gopinath Pandit for over 64,000 rupees in 1843. In 1860 Gopinath Pandit died and his son, Baidyanath Pandit, being a minor, the estate was under the management of the Court of Wards from 1860 to 1866. Baidyanath Pandit died in 1899 and his only son, Haranath Pandit, followed him in 1900 leaving a widow and two daughters. Haranath Pandit by his will bequeathed the estate to his widow, then only 13 years of age, with permission to adopt heirs, and appointed executors to manage the property during her minority. In 1905, the management being unsatisfactory, the Court of Wards stepped in, and declaring the proprietress disqualified under section 6(a) of Act IX of 1879, took charge of the estate. It remained under the Court's management till 1924 when the present proprietor Pandit Shyamsundar Nath Suthu adopted by the widow attained his majority.

The qila is situated in the extreme west of the district, and is divided into two distinct portions by the High Level Canal. The land to the west is hilly and to a great extent covered with jungle, and that to the east consists of paddy lands mostly irrigable. The Orissa Trunk Road and the Bengal-Nagpur Railway line run through it.

The qila was partly surveyed in 1892, and a complete record-of-rights prepared in 1901. The record thus prepared was revised in course of the revisional settlement of 1906—1912.

The estate comprises an area of 62,082.74 acres contained in 286 villages. Of this 37,089 acres are cultivated and the rest uncultivated. Of the total cultivated area 1,456 acres are twice cropped and about 43 per cent irrigated by the High Level Canal. Of the total uncultivated area 7,609 acres are culturable waste and the rest unfit for cultivation, being covered with hills and unculturable jungles. The total rent-paying area is 28,722 acres, out of which 30 acres pay rent in kind and the balance a total cash rental of Rs. 65,003. The total area of rent-free land in the qila is 11,892 acres and the village rate is Rs. 2-4-0 per acre.

Deuli.—A village in the Jajpur subdivision, situated 2 miles west of the police-station of Dharmsala. It contains

a small temple sacred to Gokarneswar, which is picturesquely situated on the bend of the river Brahmani round the Deuli hill. The roof of the pillared hall has fallen, and the temple is in a bad state of repair. In front of it grows a banyan-tree, at the foot of which is a life-sized monolithic image of the four-handed Vishnu, which was recovered some years ago from the river-bed.

Dompara.—Qila Dompara is a compact estate stretching along the right bank of the river Mahanadi above the point where it emerges from the narrows at Naraj. Its total area is 84 square miles, of which three-fourths is jungle.

In pre-British days, Qila Dompara formed part of Qila Banki. One of the brothers of the Raja of Banki is said to have settled in Dompara and made it a separate estate. Like the Raj family of Banki, the proprietor of Dompara belongs to the Dhal clan of the Kshattriya caste and traces his origin to Dhalbhum. In 1804 Purusottam Mansingh Bhramarbar Rai, the proprietor of the estate, engaged to pay 2,999 *kahans* 8 *pans* and 5 *gandas* of cowries to the British Government. The revenue was fixed permanently, subject to a liability to enhancement in the event of alienation, by an order of Government dated 8th September, 1829. The permanent land revenue payable is Rs. 1,333-5-4. During the minority of Raja Raghunath Mansingh Bhramarbar Rai the estate came under the management of the Court of Wards in 1857. During the Court's management the first settlement of the estate was made on the native method and the annual rent demand fixed at Rs. 7,128. In 1879, when the proprietor assumed charge of the estate, the mufassal *jama* was raised to Rs. 15,989. His son, Brajendra Kumar Mansingh Bhramarbar Rai, who succeeded him in 1888, raised the *jama* still further to Rs. 23,221 by extortionate means which provoked a revolt among the tenantry, and ultimately he had to reduce it to Rs. 21,151.

In 1903 Brajendra Kumar died leaving a minor son named Bibudhendra Mansingh Bhramarbar Rai as his sole heir, and the estate then came under the management of the Court of Wards in a grossly mismanaged state with encumbrances amounting to Rs. 64,000. During the Court's management Bibudhendra was accidentally drowned. His mother adopted a minor son from the Dhenkanal Raj family

on whose behalf the Court of Wards is managing the estate at present. The right of the widow to adopt a second heir has been challenged by a rival claimant of the Dompara family, and the appeal is at present pending before the Privy Council.

Between the years 1905 and 1907 a cadastral survey of the qila was made and a record-of-rights prepared, and this has not so far been revised. According to this settlement the total area of the qila is 53,463.78 acres contained in 28 mauzas. Of the total uncultivated area 3,720 acres is returned as culturable waste, and the rest unfit for cultivation, being covered with hills and unculturable jungle. The average village rate is Rs. 2-10-0 per acre and the total cash rental of the estate amounts to Rs. 26,240.

False Point.—Cape, harbour and light-house in the Kendrapara subdivision, situated on the north of the Mahanadi estuary, in latitude $20^{\circ} 20' N.$, and longitude $86^{\circ} 47' E.$ It derives its name from the circumstance that it was often mistaken by ships for Point Palmyras one degree further north. The harbour consists of a shallow anchorage, land-locked by islands and sand-banks, with two navigable channels inland. The light-house stands on the point, which screens it from the southern monsoon, in latitude $20^{\circ} 19' 50'' N.$, and longitude $86^{\circ} 44' 30'' E.$ The anchorage is protected by two sandy reefs, called Long Island and Dowdeswell Island, and is completely land-locked by the latter. Point Reddie on the Dowdeswell Island shelters the entrance; and further in lies Plowden Island, for the most part a low jungly swamp, with a limited area of high ground suitable for building purposes and possessing good drinking-water. The northerly littoral drift of sand in the Bay of Bengal, working in conjunction with the enormous quantities of silt brought down by the river has, however, silted up the harbour rapidly in recent years, and as it was found impossible to keep it open False Point was abandoned as a port in 1924.

Two separate channels lead inland from the anchorage, the Jambu river on the north, and on the south the Bakud, a short deep branch of the Mahanadi. Bars of sand intervene between the anchorage and these channels, but at full tide cargo boats and small steamers can enter. Several tidal creeks, navigable by country boats throughout the year, also

connect the harbour with the Dhamra and Brahmani rivers on the north, and with the Devi on the south.

Hariharpur.—(Literally the city of the tawny one and the grasping one, *i.e.*, the city of Vishnu and Siva.) A village adjoining Jagatsinghpur, on the Alanka, about 25 miles from Cuttack. Till the beginning of the 19th century the two villages were called Hariharpur; the place now goes by the name of Jagatsinghpur, owing to the greater importance of the latter village. Hariharpur is of great historical interest as being the site of the first factory established by the English in Bengal. Ralph Cartwright and his two companions, Colley the second merchant, and Bruton the ship's quartermaster, stopped here in 1633 when on their way to Cuttack to obtain a permit allowing them to trade in Orissa. Here they met with as good a welcome as at Balikuda, 11 miles march away, the Governor of which had helped them on their way with horses to ride and coolies to carry their baggage, and had escorted them with "music played most delicately out of tune, time and measure." According to Bruton, a nobleman named Mersymomeine (Mirza Momin), "one of the king's greatest noblemen and his most dear and chiefest favourite," met them "at a great *pagoda* or *pagod*, which is a famous and sumptuous service and worship there used; and giving them a warm welcome, entertained them with a very great feast or costly collation." This great *pagoda* Bruton calls a stately and magnificent building, but what it actually was is not certain. There is an old temple of Siva at Hariharpur, known locally as Somnath, but from the fact that Mirza Momin and his followers stopped in the *pagoda*, it has been suggested that it may have been a pavilion erected for royal encampments. After obtaining from the Mughal Governor the concession they had demanded, the English returned to Hariharpur on the 10th May 1633, and "hosted" in the house of their interpreter. They at once started to found a factory, and Bruton's quaint description of their proceedings shows what keen men of business they were. On the 11th May, the day after they arrived, he says, "we went to the Governor of the town and showed him our *fermand*, or commission from the king: the governor made a great *salame*, or court'sy, in reverence unto it, and promised his best assistance and help in anything that he could do; and there the said governor had a small present given to him. The

fourteenth day, the two merchants went abroad, and found out a plot of land fitting to build upon; then they laid the king's *deroy* on it and seized upon it for the Company's use; and there was no man that did or durst gainsay them for doing the same. The fifteenth day they hired workmen and labourers to measure the ground and to square out the foundation of the house, and likewise for the wall, which was one hundred conets square which is 50 yards, every conet being half a yard or a foot and a half: and it behoved us to make haste for the time of the great rains was at hand. The sixteenth day they laid the foundation of the walls, being 9 feet thick: much haste was made and many workmen about it; but this our first work was but labour lost and cast away, for it came to nothing. For on the eighteenth day the rains began with such force and violence that it beat down all our work to the ground and washed it away as if there had not been anything done: this storm continued without ceasing (day and night), more or less, three weeks complete."

The building had to be begun again, and when it was finally completed, the English proceeded to carry on a trade in the silks for which Hariharpur was then noted. The factory however soon fell in decay, as the river silted up and cut off access from the sea; in 1641 it was on the point of dissolution, and soon afterwards it was abandoned.

Harispurgarh.—A village situated at the extreme south-east of the district, at the mouth of the Patua. It was here that the English first landed in 1633 when they came north from Madras in order to exploit Bengal. Whether by accident or not, the Portuguese appear to have got wind of their design, and set upon them as they lay at anchor. The following account of their short stay here is taken from Bruton's diary of his voyage (reproduced in Wilson's *Early Annals of the English in Bengal*, Vol. I):—"The twenty-first of April, being then Easter-day, we were at anchor in a bay before a town called Harssapoore; it is a place of good strength with whom our merchants hold commerce with correspondency. This twenty-first day in the morning Mr. Ralph Cartwright sent the money ashore to the Governor of Harssapoore to take it into his safe keeping and protection until such time he came ashore himself. So presently there came a Portugal frigate fiercely in hostility towards us, but

we made ready for their entertainment and fitted ourselves and the vessel for our best defences; but at last they steered off from us, and, upon our command, she came to an anchor somewhere near us and the master of her came on board of us, who being examined whence he came and whither he was bound, to which demands he answered nothing worthy of belief as the sequel showed: for he seemed a friendly trader, but was indeed a false invader (where opportunity and power might help and prevail); for, on the 22nd day, Mr. Cartwright went ashore to the Governor of Harssapoore; and on the 24th day, the said master of the frigate (with the assistance of some of the ribble-rabble rascals of the town) did set upon Mr. Cartwright and Mr. Colley, where our men (being oppressed by multitudes) had like to have been all slain or spoiled, but that (*Lucklip*) the *rogger* (or vice-king there) rescued them with two hundred men.

“ In this fray Mr. Thomas Colley was sore hurt in one of his hands, and one of our men much wounded in the leg and head; their *nockada*, or India pilot, was stabbed in the groin twice, and much mischief was done and more intended; but by God's help all was pacified. The twenty-seventh day of April we took leave of the governor and town of Harssapoore (I mean three of us); namely, Mr. Cartwright, William Bruton, and John Dobson, leaving Mr. Colley and the four men with him, till news could be sent back to them from the nabob's court at Cuttoke, or Malcander, of our success and proceedings there with our other goods; for he is no wise merchant, that ventures too much in one bottom, or that is too credulous to trust Mahometans or Infidels.”

Jajpur subdivision.—North-western subdivision of the district, lying between 20° 39' and 21° 10' N., and 85° 42' and 86° 37' E., and extending over 1,115 square miles. Its population was 560,402 in 1901 and 592,218 in 1931. The west of the subdivision lies on the fringe of the Chota Nagpur plateau, and this portion is very sparsely populated. Towards the east, which consists of a fertile highly cultivated plain, the density increases, the figure for the whole subdivision being 531 persons to the square mile. It contains one town, Jajpur, its headquarters, and 1,627 villages.

Jajpur town.—Headquarters of the subdivision of the same name. Picturesquely situated on the right bank of the

Baitarni river in 20° 51' N. and 86° 20' E. Population (1931) 10,673. It is also the headquarters of a Public Works Department subdivision, and besides the usual public offices contains a High English School, a Middle English School, a Central Co-operative Bank, a public library and Town Hall, and several *dharmsalas* for the accommodation of pilgrims. There is a charitable dispensary with 8 beds for male and 4 beds for female patients, besides an isolation ward for cholera and dysentery cases with 5 beds. The town is 18 miles from the Jajpur Road station and the road is metalled throughout, but unfortunately intersected by the unbridged Burah river. A motor bus service plies between the station and the town from January to June when a temporary bridge is constructed. The town is also connected with the Baitarni Road Station.

The Biraja *hat* (market) held near the Biraja temple on Sundays and Thursdays is one of the largest in the district.

The name Jajpur (Jajnapura, the town of the sacrifice) is connected with the legend that Brahma brought 10,000 Brahmans from Kanauj for the performance of a ten-horse sacrifice (Dasasvamedha Jajna). Among the gods who thronged to this august sacrifice came Holy Mother Ganges (Ganga); and tradition asserts that ever since those solemn rites she has sent an offshoot of her waters through the bowels of the earth into Orissa, which emerges as the sacred Baitarni river, the Styx of the Hindus. Leaving aside the mythical Brahma, it appears possible that a great ceremony was performed with the object of reviving the Brahmanical faith and of supplanting Buddhism, which had obtained a firm hold on the country. Pure Brahmans were evidently, therefore, imported from Kanauj, the greatest stronghold of the Brahmanical faith in Northern India. The king with whom the revival of Brahmanism in Orissa is usually associated had his capital at Jajpur, and the great ceremony, which the inventive genius of later mythologists attributes to Brahma, may have been his work. A somewhat similar story is current in Bengal, where five Brahmans, the ancestors of the modern Kulins, are said to have been brought from Kanauj by king Adisura. There are traditions that the Brahmans who congregated at Jajpur for the great sacrifice and their descendants gradually spread over the rest of Orissa, and it

Legendary
history.

is noticeable that the town and its neighbourhood are still inhabited by large colonies of Brahmans, holding royal grants called *Sasans*.

Another tradition connects Jajpur with the Gaya legend, according to which Brahma induced Gaya Asura (a respectable pagan monster of great sanctity, whose only fault was that he would save sinners from perdition), to lie down for a feast to be held on his body; and having done so, placed a large stone on him to keep him there. Gaya, however, struggled so violently that it was necessary, when force failed, to persuade him to be quiet, which was done by a promise being made that the gods would take up their abode on him permanently, and that any one who made a pilgrimage to the spot, and performed certain ceremonies, should save himself and his ancestors from the penalties of the Hindu place of torment. Such was the vast bulk of the monster that when stretched on the ground his head rested at Gaya, and his navel at Jajpur; and a sacred well, a few feet deep, called the Gaya Nabhi (navel) still commemorates his fall. Here the pilgrims make offerings of *pindas* or rice-cakes as an expiation of the sins of their ancestors, in the same way as in the great pilgrim city of Gaya. It is possible to see in this legend an allegory of the triumph of Hinduism over Buddhism, the area covered by the body of Gaya perhaps alluding to the territory in which Buddhism prevailed; and it may be that this legend, like that of the great sacrifice from which the town obtains its name, points to the former prevalence of Buddhism and to its disappearance before the growing popularity of the Brahmanical faith.

The Gaya legend is a Vishnuite legend, in which Vishnu plays an important part; and it is interesting to notice that side by side with it is a well-known Sivaite legend which explains the sanctity of Jajpur as a sacred city of the bloody goddess, Kali. According to this myth, Siva became so disconsolate after the death of his wife Sati that he wandered for ages through the world carrying her corpse. To put an end to his despondency, Vishnu cut up the corpse with his celebrated *chakra* into 51 fragments, which falling in as many places made the 51 places of pilgrimages devoted to the goddess of destruction. A temple at Jajpur, containing the image of Sati under the name of Biraja or the passionate one,

now marks the sacred spot on which one of these fragments fell. The present building is comparatively recent and cannot be of an earlier date than the 14th century; but the site is very old, and from the mention of "Biraja Kshetra" in the Mahabharata it has been inferred that it was a sacred spot as early as the 2nd or 3rd century A.D.

The temples of Siva, Trilochaneswar and Kali on the southern bank of the Hansarekha, and the Somatirtha and Gobarnika tanks are also objects of antiquarian interest.

Jajpur is said to have shared with Bhubaneswar, the honour of being the capital of Orissa till the 10th century A.D., when the seat of government was removed to Cuttack, the present capital of the province; and it has been suggested that the name is derived from Jajatipura, as Jajati Kesari, the first Kesari king of Orissa, it is said, held his court here in the 5th century and built himself a castle and palace in the town. It did not, however, lose all its importance, as it continued to be one of the five *Katakas* or fortified capitals of the kings of Orissa, and at a later period, Muhammad Taqi Khan, the Deputy of the Nawab Shuja-ud-din, held his court and built a palace here on the site now occupied by the subdivisional buildings. His palace was pulled down by one of the Maratha *amildars*, who used the stone to build his own mansion and the temple of Gobindji at Bhogmadhab, a mile from the town.

Tradition says that the last great battle between Mukunda Deva and the Afghan conquerors was fought at a place, called Gobira Tikri, about 4 miles to the north-east. The place is still dreaded, as it is believed that whole armies are lying sunk in the adjoining marshes, where they still beat their drums and blow their trumpets at dead of night.

Jajpur contains within its limits relics of almost all the **Monuments**, phases through which image worship has passed in Orissa. Leaving the temple of Biraja, one finds shrines of Siva scattered all over the town and its vicinity, of which the most important are those of Akhandaleswar, Aganeswar, and Trilochaneswar. The first two at least must be of some antiquity, as they are mentioned in the Madala Panji, or palm-leaf chronicles of the temple of Jagannath, as having received grants from King Ananga Bhima Deva. The temple of

Akhandaleswar contains among others a well-carved image of a small naked figure with a placid countenance, which is evidently a Jaina Tirthankara; and the lingam of Aganeswar is believed to change its colour every quarter of the day.

On the bank of the sacred Baitarni stand side by side a modern temple of Jagannath erected in the time of Raghuji Bhonsla, containing an image removed from the fort at Salampur, and a much older temple of Kali of the usual Orissaic type. To the east of Kali's temple overlooking the bed of the sacred river, is a raised gallery containing eight life-size monolithic statues of the seven mothers, Indrani, Varahi, Vaishnavi, Kumari, Sivaduti, Kali and Mahesvari and of the Narsingha incarnation of Vishnu. Stirling writes of them as follows:—"They are said to have been recovered lately out of the sand of the river, where they were tossed by the Mughals on their shrines being destroyed, by a *mahajan* of Cuttack who built the edifice in which they are now deposited. The figure of Kali is sculptured in a very spirited manner; she is represented with an axe in one hand and a cup full of blood in the other, dancing in an infuriated attitude after the destruction of the giant Rakta Vija, and trampling unconsciously on her husband Mahadeva, who, as the fable runs, has thrown himself at her feet to solicit her to desist from those violent movements which were shaking the whole world. That of Yama Matri, the mother of Yama,* is also a very striking and remarkable piece of sculpture. Her form is that of a hideous decrepit old woman seated on a pedestal, quite naked, with a countenance alike expressive of extreme age and that sourness of disposition which has rendered her proverbial as a scold."

On an island in the middle of the river stands the temple of Varahanath, the boar incarnation of Vishnu, which is said to have been repaired by King Prataparudradeva (1496—1530 A.D.) and to have been visited by Chaitanya, the Bengal apostle of Vaishnavism, about A.D. 1510. The temple is approached by a flight of steps, the name of which, Dasasvamedha Ghat, commemorates the great sacrifice mentioned above. Within the compound of the Subdivisional Officer's quarters are four colossal images named Varahi, Chamunda, Indrani, and Padmapani. The first three once adorned the

* The so-called Yama Matri image is now said to be that of Sivaduti.

colonnade of the Mukti mandap or conclave of Pandits, but were flung down by the conquerors, who broke up the remainder, and made them into cannon-balls. The last is a mutilated representation of the Bodhisatva Padmapani, which was brought here from Santmadhab, about a mile off, where it was lying buried. The first three are members of the Hindu group known as the seven mothers.

Adjoining the compound of the subdivisional office stands the mosque of Abu Nasir Khan, erected towards the end of the 17th century with materials obtained from the demolished Hindu temples. It has four minarets on the east face, and three domes on the roof, which are mere coverings to the three flat ground domes forming the roof of the interior. There are openings to the interior of the domes on the roof, and very possibly they were used as places of concealment. There is a Persian inscription over the centre doorway, of which the following is a translation:—"In the time of Aurangzeb, whose splendour reached the stars and will remain as long as the stars endure, in the time of the Nawab whose virtues are altogether beyond praise or description, the Nawab established in the city of Jajpur a mosque of such magnificence that the domes of it make the sky conceal itself. If you desire to hear the messages of the angels, spend a night in it. Abu Nasir Khan reigned when the mosque was erected:—then was the time of Abu Nasir Khan."

A few yards off from the road leading from the bazaar to the temple of Biraja, a massive stone pillar, known as the Chandeswar pillar, exquisitely chiselled and well proportioned, marks the site of a temple of proportionate dimensions, every trace of which has been obliterated. The pillar is 22 feet high, standing on a pedestal of three enormous blocks of stone, each about 5 feet long, 5 feet broad, and 2 feet thick. The monolith itself is $3\frac{1}{2}$ feet square at the bottom, bevelled off for some inches at each corner, and fluted above for a height of about 20 feet. On the top of the monolith is another block of stone wrought into a regular capital, on the lower portion of which garlands are sculptured. The stone is then cut into the shape of a lotus calyx which supports the upper portion, a square of about $4\frac{1}{2}$ feet. On this was the figure of Vishnu's vulture, which was pulled down by the great Musalman iconoclast Kala Pahar, and now rests in a small

temple about half a mile off. The fury of the iconoclast was, however, wasted in the attempt to pull down the column itself by means of chains and teams of elephants. Holes were drilled for the chains, and the column was moved an inch or two from its position on the pedestal, but it still rears its lofty head in defiance of the elements to which it is exposed.

The visitor cannot fail to notice more patent marks of Musalman fury in the disfigured faces and broken arms of images and the broken capitals and pillars found on all sides. To quote the graphic account of Sir William Hunter :—
 “ Whatever the Musalman bigotry could destroy has perished; and the grave of an Afghan iconoclast quarried out of Hindu shrines now forms the most conspicuous monument in the metropolis of the Sivaite priests. The Muhammadans of the sixteenth and seventeenth centuries stabled their horses in the Hindu palaces, and tore down the great temples, stone by stone, to build royal residences for their own chiefs. At first the Orissa deities, who became the demons of the Musalmans, as the gods of Greece and Rome furnished devils to primitive Christendom, resisted by signs and portents. But there came a saint in the Afghan army, named Ali Bukhar, a follower of Kala Pahar, whose detestation of the infidel had transported him from Central Asia to the Bay of Bengal, and whose piety (or persecution) cowed the evil spirits of the bygone creed into silence. He threw down the colossal statues of the Hindu gods, and for nearly three centuries they have lain prostrate under his mystical spells. The great high place of Sivaism resounded with the Friday prayers and the daily readings of the Koran; and a curious document, dated upwards of two hundred years ago, still enjoins the Jajpur authorities to pay the cost for lamps to the Musalman family in charge of the public ministration of Islam.” This Ali Bukhar, legend relates, had his head cut off in the final assault on Fort Barabati at Cuttack, but his headless trunk spurred his horse till it reached Jajpur. Here the body was buried on the high terrace where his tomb still stands, his horse being buried in a separate grave beside him. It is characteristic of this iconoclast that his tomb should be built on the site of the *Mukti mandapa*, which was destroyed by the conquerors.

**The
Tentulimal
Bridge.**

Not far from Jajpur is a peculiar bridge of 11 arches, called the Tentulimal bridge, which appears to belong to

an age ignorant of the use of the arch, and to be one of the bridges erected by the early sovereigns of Orissa. The arches are formed entirely by corbelling, i.e. by making each successive layer of masonry overlap the layer below, until the two piers come to within a foot of each other at the top. On this space a long narrow block of stone is laid as a sort of keystone, over which enormous blocks of stone, some of them $4\frac{1}{2}$ feet long and half that in breadth, are laid transversely, apparently with the object of making the upper layer of the piers on each side grip the keystone. The whole bridge is about 240 feet long and 32 feet broad, and each of the piers is about 10 or 12 feet wide; the abutments at each end are of laterite, but in the centre the masonry is of coarse red granite. There are two points, however, in the bridge which tell somewhat against its antiquity. The first is that in various parts of the piers and under the opening arches one notices stones which have evidently formed part of another and older structure. Here and there are bits of chequered carving, and also a number of stones with bas-reliefs on them, disposed with a certain regularity in the centre of each pier, which evidently have come from an older structure and have been fitted into this. One of these is a carving, probably intended for a representation of Buddha in a sitting posture, which has the square broad face, long ears, and heavy head and feet one often sees in figures of Buddha. The other point is the two kinds of stone used. The laterite of the abutments and of one or two of the smaller side-arches, and the coarse granite of the centre arches, would indicate that the masonry of the centre arches is of more recent construction than that at the sides. In any case, however, the bridge must have been constructed before the Mughal conquest of Orissa, and possibly the explanation of the difference in the stone is that, the centre arches of laterite having fallen in, the ruins of some Buddhist temples were used to rebuild it. An interesting account of the antiquities of Jajpur and of the traditions current there will be found in an account of the Antiquities of Jajpur in Orissa, by Babu Chandra Sekhar Banerjee, J. A. S. B., Vol. XL, no. 2, 1871.

Kalkala.—Qila Kalkala originally formed part of Qila Darpan, which according to the prevailing tradition was, more than 500 years ago, granted by a Hindu king to his son-in-law Charu Bidyadhar. The descendants of Charu Bidyadhar held Qila Darpan for 12 generations, and during the reign of

Gopinath Bidyadhar the Muhammadans conquered Orissa. Pressure was then brought to bear upon him to embrace Islam, and unable to withstand the power of the Muhammadan governor, Gopinath Bidyadhar left his estate and took refuge amongst the hills and jungles of Kalkala. Sometime after, the Muhammadan ruler came to hunt in the Kalkala jungles and Gopinath Bidyadhar rendered him valuable assistance, in recognition of which he was pardoned and granted the zamindari of Kalkala. At the time of the British conquest, when the permanent settlement of Qila Darpan was effected with Raja Gulzar Hussain, Kalkala was separated and permanently settled with a descendant of Gopinath Bidyadhar whose heirs are still in possession of it. Nanda Kishore Bidyadhar Mahapatra is the present proprietor of the Qila, and the permanent land revenue payable is Rs. 131-3-7.

The qila is for the most part jungle, and only one-fourth of the total area is cultivated. It was surveyed for the first time in the settlement of 1922—32 and its total area was found to be 12,074.43 acres contained in 21 villages, of which 3,239.97 acres are cultivated and 8,834.46 acres uncultivated. Of the total cultivated area 502.98 acres are irrigated, and almost the entire uncultivated area is shown as unculturable waste. The total rent-paying area in the qila is 3,816.54 acres, out of which 17.31 acres pay rent in kind and the rest a total cash rent of Rs. 3,372. 546.52 acres are held free of rent. The village rate of the qila is Rs. 1-4-0 per acre.

Kanika.—Qila Kanika, with an area of 440 square miles, situated along the sea-coast on both sides of the Dhamra estuary and extending about 20 miles inland, is the largest estate on the Cuttack revenue roll, but out of its total area 175 square miles are situated within the geographical limits of the district of Balasore. The formation of the tract is deltaic. The lower portion close to the sea-coast consists of low dense, marshy jungles, which become thinner and higher as they recede from the sea. Higher up are arable plains, the lower portions of which are subject to salt-water floods during storms and cyclones, and the upper to inundation by the many branches of the Baitarni and Brahmani rivers. The crops are always liable to be destroyed, and it must be reckoned as one of the parts of the country most liable to famine.

The estate is divided into four main fiscal divisions locally called *ilagas*, namely (1) Panchmukha, (2) Chhamukha,

(3) Kerara, and (4) Kaladwip. The first *ilaqa* lies in the district of Balasore, and the others in the Kendrapara subdivision of Cuttack. The village Ganja, the headquarters of the estate, is situated on the left bank of the Kharsua on a sandy strip of land, 3 miles long and 200 yards broad.

It is said that this part of the country was peopled by aboriginal tribes, ruled over by several petty Rajas until about the year 1200 A.D. when a brother of the ruling chief of Mayurbhanj established himself in possession of the portion of the qila now known as Ilaqa Chhamukha. By conquest and marriage his successors added to their property, and at the time of the British conquest the Raja, Balbhadra Bhanja, held not only the four *ilakas* of the present estate of Kanika, but the zamindari of the large estate of Utikan. The first Commissioners in 1803 confirmed his *peshkash* of 84,840 *kahans* of cowries, equivalent to Rs. 20,408, which is the land revenue paid by the estate to the present day.

In 1805, owing to the Raja's malpractices, he was imprisoned and the estate was held under *khas* management. Next year he was reinstated, and on his death, in 1813, he was succeeded by his two sons. In 1845, during the minority of Balbhadra Bhanja's great grandson, the estate came for four years under the Court of Wards, by whom a settlement was made which raised the *jama* to over Rs. 82,000. The estate was again brought under the management of Government in 1862, on the application of the late Raja Padmanabh Bhanja; and as he was declared insane in 1865, it continued to be held by the Court of Wards until his death in 1891, and was then managed by the Court on behalf of his adopted son, Nripendra Nath Bhanja, and after his death in 1895 on behalf of the minor (adopted by the Rani) Rajendra Nath Bhanja Deo, who is a son of the Raja of Aul. It was released in 1902, when the ward attained his majority.

Although several partial settlements were undertaken by the native method from time to time during the Court's management, no detailed measurement of the whole estate was made till 1889—92, when it was traversed and cadastrally surveyed, and a complete settlement made. The rental of the estate, which amounted to Rs. 1,36,063 at the settlement of 1892, rose to Rs. 1,98,346 at the recent settlement of 1922—32, which was carried out under the provisions of the Orissa Tenancy Act. Out of the total area of 206,290 acres, 143,251

acres or roughly 70 per cent are under cultivation, 1,316 acres being twice cropped and 3,070 acres having facilities for irrigation. Of the total uncultivated area 30,013 acres or 48 per cent are reported to be culturable waste, and the rest unfit for cultivation, being covered with sand and water, etc. The average village rate of the qila is Rs. 1-7-0 per acre. The total rent-paying area in the qila is 139,542 acres out of which 155 acres pay rent in kind and the rest pay cash rent amounting to Rs. 1,98,346. 8,194 acres are held free of rent.

Kendrapara subdivision.—North-eastern subdivision of the district, lying between 20° 18' and 20° 48' N., and 86° 15' and 87° 1' E., and extending over 977 square miles. Its population was 467,081 in 1901 and 496,498 in 1931. It is bounded on the east by the Bay of Bengal, and the tract along the coast is very sparsely populated. The density rises towards the west, and the figure for the whole subdivision is 508 persons to the square mile. It contains one town Kendrapara, its headquarters, and 1,353 villages.

Kendrapara town.—Headquarters town of the subdivision of the same name, situated in 20° 30' N. and 86° 25' E. Its position on the Kendrapara canal in the heart of a rich grain-producing country gives it a considerable trade, and it is connected by road with Cuttack, Jajpur and Chandbali. Besides the usual public buildings, Kendrapara possesses a high school and dispensary, a sub-jail, and a public library. The town is divided into three portions, one between the canal and the river Gobri, a second portion north of the river, and a third south and east of the canal. The area within municipal limits is 2½ square miles, and the population, according to the census of 1931, is 12,620.

Kujang.—Qila Kujang is one of the great qilas of the district, and has a total area of 354 square miles. It consists of two distinct tracts, the first a marshy and almost uninhabited strip along the sea-coast, and behind this low-lying arable lands intersected by innumerable streams and tidal creeks, which both inundate the land and supply means of irrigation in the cold weather. As in Kanika, the harvest is liable to be destroyed by storms and cyclones, as well as by floods in the Mahanadi river.

The original Rajas of Kujang were descended from Mallik Sindh, Raja of Dhobaigarh, who lived in the 17th century.

The surname ' Sendh ' (or bull) commemorates the occurrence in which Mallik Samant *alias* Sendh with great courage and physical strength won one-fourth of the *garh* from the original chief by fighting with a frantic bull and driving it out of the Raj. Soon after the death of the chief, he annexed the whole of Dhobai *garh*, and subsequently his successors with the help of the Raja of Kanika fought with and subdued the chiefs of the neighbouring *garhs* amalgamating them all under the name of Kujang. At the time of the British conquest, Gangadhar Sendh was in possession and executed an *iqrarnama* for the payment of *peshkash* of 14,011 *kahans* of cowries. In 1812, his son Chaturbhuj Sendh tried to instigate the Rajas of Kanika and Khurda to join him in conspiracy against the British authority, but the attempt being detected Colonel Harcourt with a detachment marched against him. He was dispossessed and imprisoned, and his brother, Birbhadra Sendh, whom he had kept a close prisoner at the fort of Paradwip, was released and placed on the throne. Birbhadra Sendh executed a new agreement for the payment of *peshkash* amounting to Rs. 7,502-11-7 which is the permanent land revenue payable by the estate. The dissoluteness and extravagance of the proprietors and the effects of the famine of 1866 involved the estate heavily in debt, and after being attached for two years by the Civil Court for debt it was at last sold in 1869 and purchased by the Maharaja of Burdwan. On the death of the Maharaja the estate came under the management of the Court of Wards, and in 1887 a settlement of the estate was carried out under Act X of 1859. The *garh* was excluded from the scope of the settlement operations of 1892—98 and 1906—12, but during the settlement of 1922—32 records-of-rights were prepared and rents settled under the provisions of the Orissa Tenancy Act. The estate is at present under the management of the Court of Wards, Burdwan, on the application of the present proprietor Shree Bijoychand Mahatab, Maharajadhiraj Bahadur, G.C.I.E., K.C.S.I., I.O.M., under section 6(e) of the Court of Wards Act.

The total cultivated area of the estate is 103,604 acres which represents about 45 per cent of the total area. Of this 1,120 acres are twice-cropped and 3,225 acres irrigated. Of the total uncultivated area 40,723 acres or 33 per cent are returned as culturable waste, and the rest as unfit for cultivation, being covered with sand and water, etc. The total rent-paying area in the estate is 100,715 acres out of which only

12 acres pay rent in kind, and the rest a total cash rent of Rs. 2,44,811. 12,518 acres are held free of rent and the average village rate in the qila is Rs. 2-4-0 per acre. An area of 6456.77 acres of Government land is included within the ambit of the estate.

Madhupur.—Qila Madhupur is held at a *jama* of Rs. 6,174-12-0 fixed in perpetuity under a *sanad* granted by the first Commissioners for the settlement of the Province and confirmed under Regulation XII of 1805. This estate lies at the foot of the Dhenkanal hills. The western half is to a great extent covered by bare rocky hills and scrub jungles; the lands to the east and north lie interspersed with those of the Mughalbandi and are fertile and highly cultivated. It has a total area of 40,675 acres, of which 23,660 acres are cultivated and 4,939 acres culturable waste.

The origin of the estate is not known, but it appears that an adventurer from the north-west established himself in possession of it as in the case of qila Sukinda. Raja Krishna Chandra Dhir died in 1888 as the result of a fall, and his eldest son, Birbar Narayan Chandra Dhir, being then only 6 years old, the estate came under the management of the Court of Wards until he attained his majority in 1902.

The estate was traversed and cadastrally surveyed in 1891—93, and a complete record-of-rights prepared in 1897. The records were revised in course of the settlement of 1906—12, and it was consequently excluded from the recent settlement of 1922—32.

The total rent-paying area in the qila is 22,871 acres, out of which 802 acres pay rent in kind and the rest a total cash rent of Rs. 37,536. The average village rate is Rs. 2-8-0 per acre.

Mahavinayaka Hill.—A peak of the Barunibunta Hills in the Jajpur subdivision, situated in 20° 42' N. and 86° 6' E. The hill is covered with jungle, and is seldom visited by any but pilgrims. It was probably from the beginning a Sivaite place of worship, no signs of Buddhism being traceable. On the northern slope of the hill, about 400 feet above the level of the surrounding country, there is a monastery, occupied by Vaishnavas, who have evidently superseded the original Sivaite; and close by is a modern temple built on a base of cut stone, which is all that remains of the old shrine which

once stood here; the walls and pyramids were destroyed by the Muhammadans and appear to have been rebuilt subsequently. The principal curiosity of the place is a massive piece of rock, known as the god Mahavinayaka, over which the modern temple has been built. The rock is over twelve feet in circumference, oval at the top, and has three faces in front. The middle one bears a tolerable resemblance to the head and trunk of an elephant, and is accordingly worshipped as Ganesh or Vinayaka; the right face of the rock is revered as a representation of Siva; and, according to popular belief, a knot over the left face represents the bound-up tresses of the goddess Gauri. The rock is accordingly worshipped as the union of the gods Siva and Ganesh and of the goddess Gauri. About 30 feet higher up there is a waterfall, which supplies water to the temple and pilgrims, and a few steps above this fall are some images of Siva, called the *Ashta Lingam* from their number. On the south side of the hill are the ruins of a fort known as Teligarh; the walls and inner rooms are of laterite and the doorways of gneiss.

Naltigiri Hill.—One of the hills of the Assia range in the Jajpur subdivision, but separated from it by the Birupa river, situated in 20° 35' N. and 86° 15' E. It can most easily be approached by motor bus from Jagatpur Railway Station to Mahanga, which is 4 miles south of the hill. Naltigiri (Lalitagiri) consists of three spurs, the Olashuni, the Londa or Nanda, and the Parahari. The Olashuni bears no ancient remains, but the cenotaph of the saint Arakshit Das, the founder of the Arakshit Dasi sect of Oriya *sadhus*, is situated on it and attracts large numbers of pilgrims. The north-eastern half of the Londa hill slopes towards the base of the Parahari hill, and is covered with extensive remains of ancient brick buildings which have yielded splendid images of the Mahayana Buddhist deities. About 20 years ago a Sadhu belonging to the Arakshit Dasi sect established a *math* on the top of the Londa hill. In this monastery a colossal seated image of Buddha, said to have been exhumed from the neighbouring brick mound, has been placed in a hut under a tree. Near by is an unfinished modern temple in the niches in the walls of which have been fixed a number of magnificent Buddhist images, some of which, from the character of the inscriptions upon them, must date from the eighth century A.D. The beautifully carved door jambs evidently belonged to one of the ancient temples. Two hundred yards to the north of

the *math* stands in the open a two-armed image of Manjusri, whilst just above the pass between the Londa and Parahari hills, round a modern temple of Guru Vasuli, stand another half dozen Buddhist images, one of which bears an inscription in characters of the eighth century A.D. On the northern slope of the Parahari hill there is a long shelf cut out of the hill-side and known as the *Hati Khal*, on which stand the remains of what was once a gallery of life-size Mahayana Buddhist images, six of which are still standing.

Palmyras Point.—A head-land in the Kendrapara subdivision situated in 20° 46' N. and 86° 59' E., which constitutes a landmark for coasting vessels making for the Hooghly from the south.

Patiya.—Qila Patiya was originally a part of the kingdom of Khurda, but was separated and granted to Chhakari Bhamarbar, the younger son of Raja Telinga Mukunda Deva, the then ruling king of Khurda, in the time of the Emperor Akbar. At the time of the British conquest Qila Patiya was held by Raja Raghunath Deva, who by an arrangement with the Maratha Government held at free of revenue in exchange for the surrender of his zamindari of Saibir. This arrangement was confirmed by the Commissioners appointed for the settlement of the province, and they further agreed to pay the Raja a pension of 5,000 cowries annually, but this arrangement was discontinued in 1821.

The estate was attached by the Subordinate Judge of Cuttack from 1878 to 1907 on account of the heavy debts of Raja Raghunath Deva, and has recently been sold at a Civil Court auction sale and purchased by Raja Rajenda Narayan Bhanja Deo, O.B.E., of Kanika.

The qila had no records-of-rights till 1922—32, when it was cadastrally surveyed and a record-of-rights prepared under the Orissa Tenancy Act.

Ratnagiri Hill.—Ratnagiri is a small isolated outlier of the Assia range, situated in the Jajpur subdivision 4 miles from Gopalpur on the bank of the river Kelo in 20° 39' N. and 86° 20' E. It is flat-topped and covered with extensive ruins, noticeable among which are several colossal heads of Buddha. On the top of the hill is a temple of Mahakali possibly three or four hundred years old. A large number of Buddhist images lie scattered round the temple, and there is a curious

twelve-armed three-headed image of Siva Bhairava amongst them. A few yards from the temple in a grove of big trees are placed in groups a collection of about a dozen life-size Buddhist images dating from the eighth to eleventh centuries A.D. The remains of a big *stupa*, the *Pradakshina* (Circumambulation) path round which was enclosed by four walls forming a square, are also traceable on the hill to the north-east of the temple.

Sarangarh.—At Sarangarh about 5 miles south-west of the town of Cuttack the ruins of an old fort still exist. The word 'Sarang' appears to be a corruption of Churang or Choraganga, the founder of the Gangabansa dynasty (1104—1111 A.D.), the whole name signifying the fort of Churang. The place is now covered with jungle, in the midst of which the ruins of the old fort can still be seen, and close by a large tank bears the name of Churang pokhari. Sarangarh is an important place in the history of Orissa, Kala Pahar having fought his last great battle with the chiefs of Orissa under its walls. A detachment of British troops was stationed here for some years after the conquest of Orissa.

Sukinda.—Qila Sukinda, according to the prevailing tradition, was founded in the middle of the 8th century by Jogendra Bhupati, an inhabitant of Central India, who while on the pilgrimage to Puri stopped at the place, then inhabited by aboriginal tribes such as *Savars* and *Bhumijis*, and married the daughter of the aboriginal chief named Krishna Chandra Dhir. Since then 44 Rajas have, one after the other, succeeded to the *gadi*, and the name of the present proprietor is Krutibash Bhupati Harichandan Mahapatra, who has been in possession for the last 35 years. At the time of the British conquest, Dhrubji Bhuban Harichandan Mahapatra was the proprietor of the qila with whom a permanent settlement was concluded by the Board of Commissioners for 5,500 *kahans* of cowries, equivalent to Rs. 1,364, which is the land revenue payable by the estate down to the present day.

The father of the present proprietor only succeeded to the estate after a good deal of litigation with a rival claimant, a member of the Panchhkot Raj family, and during the pendency of the litigation the estate was under the management of the Court of Wards from 1873 to 1883.

The estate is for the most part densely wooded hill country, and only about one-fifth of the total area is cultivated.

It had no record-of-rights till the 1922—32 settlement when it was cadastrally surveyed and records prepared under the provisions of the Orissa Tenancy Act. The total area of the qila according to the recent settlement is 214,238 acres contained in 245 villages, out of which only 41,975 acres or 20 per cent of the total area is under cultivation, and the rest uncultivated. Of the cultivated area 1,003 acres are twice cropped and 703 acres irrigated. Of the total uncultivated area 106,389 acres (or 61 per cent) are culturable waste and the rest unfit for cultivation. The total rent-paying area of the qila is 51,336 acres, out of which 122 acres pay rent in kind and the rest a cash rent of Rs. 44,174-10-0. An area of 2,562 acres is held free of rent. The average village rate in the qila is Re. 1 per acre. The area of Government land included within the ambit of the estate is 552.27 acres.

Udayagiri Hill.—"Sunrise Hill", the most easterly peak of the Assia range, situated in the Jajpur subdivision, three miles north of Gopalpur on the Patamundai Canal, in 20° 39' N. and 86° 15' E. Two arms of the hill, one extending to the north-east and the other to the south-east, form a bay, opening towards the east. In the middle of the plain enclosed in the bay, on a low mound of debris, stands a two-armed image of the Bodhisattva Avalokitesvara bearing an inscription in characters of the seventh or eighth century A.D. which reads "This is the pious gift of the monk Subhagupta." About 200 yards to the south-west, at the base of the terrace of the hill, is a large well cut in the rock; it is 23 feet square, 28 feet deep from the top of the rock to the water level, and is surrounded by a stone terrace 94½ feet long and 39 feet broad. The entrance to the terrace is guarded by two monolithic pillars, the tops of which are broken. The edge of the well and the extremity of the terrace are lined with battlements of large blocks of wrought stone, rounded on the top and 3 feet in height, leaving a wide passage or walk behind. The well is situated at the southern extremity of the terrace. From the north and in the centre of the terrace a few yards off the entrance, a flight of 31 steps cut out of the solid rock leads down to the water. The rock between the lowest step and the well has been cut into an arch, on which is an inscription in Nagri characters of the tenth or eleventh century A.D. to the effect that the well is the gift of the royal officer Vajranaga. From the margin of the platform of the well begins to rise an extensive natural terrace which is covered

with very interesting remains. Just beyond the well in the thick jungle stood a magnificent carved door frame, which was removed to Cuttack in the early seventies and now stands on the open ground to the east of the Ravenshaw College compound. In the southern part of the terrace, at some height above the base, stands a modern temple of Mahakali where worship is offered to a group of badly damaged old images covered with vermillion. A little higher up the terrace in the midst of the jungle stands a fine four-armed image of Avalokitesvara, 6 feet 8 inches high, bearing an inscription in eighth century characters. A few yards to the south of this, in a ruined brick shrine, a colossal seated image of Buddha carved out of several pieces of rock lies half buried in the debris.

The northern portion of the terrace is also covered by numerous brick mounds, *stupas*, and fallen statuary and carving dating from the eighth to the eleventh century A.D. Many images have been removed during the last fifty years to Cuttack, Kendrapara and Calcutta, and doubtless many more lie buried in the brick mounds on the terrace that are hidden by impenetrable jungle.

The extensiveness of the ruins and the topographical features suggest the possibility that the site is to be identified with the Pushpagiri (monastery in the mountain) described by Hiuen Tsang in the seventh century A.D.

Vyas Sarovar.—A small tank 2 miles from Jajpur Road Station reputed to be the lake in which the Kuru king Durjodhana, fleeing from the disastrous Kurukshetra battle, concealed himself from the victorious Pandavas till he was eventually discovered and slain by Bhima. In the Mahabharata the lake is named 'Dipayana'.

A *mela* is held on the banks in Magh of each year in memory of this legendary event. Unfortunately the tank is silting up.

TABLE II.
RELIGION AND LITERACY.

Revenue Thanas and Police-stations.	Total population.	Population by religion.					Literate.	
		Hindus.	Muslims.	Christians.	Tribal Religions.	Others.	Males.	Females.
DISTRICT TOTAL ...	2,176,707	2,106,830	66,104	2,873	438	462	151,659	11,286
Sadr Subdivision ...	1,087,981	1,045,209	39,655	2,612	79	436	76,912	7,112
Cuttack ...	237,146	231,142	13,304	2,577	79	46	25,108	3,571
Cuttack Town P. S.	64,197	51,913	9,861	2,373	10	40	...	...
Cuttack Sadr P. S.	113,535	109,936	2,527	57	...	6	...	...
Tangi P. S.	60,426	59,394	916	147	69	...	...	...
BABHI ...	84,408	83,098	310	8	...	390	4,778	407
Banti P. S.	64,138	63,493	245	8	...	390	...	...
Baldewar P. S.	20,270	20,205	65	...	...	...	...	...
SALUPUR ...	206,440	205,505	13,873	11	...	...	18,884	1,536
Salpur P. S.	143,728	134,541	9,175	11	...	...	...	...
Mahanga P. S.	82,304	79,670	2,634	...	...	...	...	...
Keshnagar P. S.	40,417	38,353	2,064	...	...	...	...	...

TABLES.

TABLES.

259

TIRUOL ...	138,491	189,035	4,443	13	...	...	...	10,705	534
Tirul P. S. ...	141,391	137,183	4,195	13	...	...	...	...	...
Etama P. S. ...	68,100	51,853	246	...	...	...	...	...	...
JAGATSVAMPUR ...	308,407	293,769	7,735	3	...	...	...	17,437	1,099
Jagatsingpur P. S. ...	154,648	150,164	4,481	3	...	...	...	...	...
Gobindpur P. S. ...	52,379	79,980	2,399	...	...	...	...	...	...
Balikuda P. S. ...	69,470	68,625	845	...	...	...	...	...	...
Kendrapara Subdivision ...	496,498	487,188	9,174	133	...	...	3	37,324	1,938
KENDRAPARA ...	246,069	242,349	5,798	19	...	...	3	18,546	973
Kendrapara P. S. ...	134,969	130,474	4,417	18	...	...	...	...	...
Palkura P. S. ...	119,160	111,775	1,381	1	...	...	3	...	...
PAHAMUNDAL ...	127,112	128,373	1,683	107	...	...	...	11,620	517
Patamundal P. S. ...	100,913	99,400	1,500	13	...	...	...	...	...
Mahatapara P. S. ...	26,199	25,973	133	94	...	...	...	...	...
AUL OR RAJBARI ...	121,317	119,566	1,744	7	...	...	...	7,063	463
Aul P. S. ...	87,962	86,331	1,631	...	...	...	...	...	...
Rajnagar P. S. ...	33,365	33,336	113	7	...	...	...	...	...
Jaipur Subdivision ...	592,213	574,483	17,275	128	...	359	23	37,513	2,511
JAIPUR ...	291,759	273,396	8,397	4	...	...	2	19,512	1,201
Jaipur P. S. ...	156,781	151,831	4,944	4	...	...	2	...	...
Bijnharpur P. S. ...	125,008	131,555	3,453	...	...	...	...	...	...
DHARAMSALA ...	310,439	301,047	8,878	124	...	349	31	18,001	1,010
Dharamsala P. S. ...	118,614	115,064	3,446	65	...	...	...	...	...
Satinda P. S. ...	44,564	44,395	169	1	...	...	...	...	...
Bacham P. S. ...	85,516	82,127	3,364	8	...	...	19	...	...
Koral P. S. ...	61,713	59,441	1,861	39	...	369	3	...	...

TABLE III.

PRINCIPAL CASTES AND TRIBES IN THE DISTRICT.

(Census 1931.)

Bania	...	...	...	8,051
Barhi	...	...	...	25,622
Bauri	...	...	...	78,553
Bhandari	...	...	...	42,884
Bhuiya	...	...	...	80
Bhumij	...	...	...	3,210
Brahman	...	...	...	186,021
Chamar	...	...	...	16,954
Chasa	...	...	...	153,663
Darzi	...	...	...	1,191
Dom	...	...	...	4,442
Gaura	...	...	...	145,132
Ghusuria	...	...	...	745
Gokha	...	...	...	14,172
Guria	...	...	...	73,925
Hari	...	...	...	8,209
Kamar	...	...	...	15,781
Kandra	...	...	...	97,356
Karan	...	...	...	56,859
Kayastha	...	...	...	6,454
Kela	...	...	...	3,415
Kewat	...	...	...	78,498
Khandait	...	...	...	548,664
Kumhar	...	...	...	27,901
Mahuria	...	...	...	726
Mali	...	...	...	6,918
Oraon	...	...	...	2,069
Pan	...	...	...	116,105
Rajput	...	...	...	15,167
Santal	...	...	...	1,073
Savar	...	...	...	33,388
Sival	...	...	...	2,136
Tanti	...	...	...	58,673
Teli	...	...	...	68,142

TABLE IV.

VITAL STATISTICS.

Year.	Per mille of the population			Number of deaths from—								
	Birth-rate.	Death-rate.	Survival rate.	Plague.	Cholera.	Small-pox.	Fever.	Bowel complaints.	Respiratory diseases.	Injuries.	Other causes.	Total.
1922 ...	41.3	30.2	11.1	...	3,148	195	30,477	7,535	886	1,141	17,537	60,919
1923 ...	42.2	33.4	8.8	...	1,206	563	32,110	8,648	1,307	1,147	23,336	67,317
1924 ...	36.1	41.1	—5.0	...	2,128	803	39,976	13,066	1,691	1,155	24,503	83,322
1925 ...	32.4	38.6	—6.2	...	622	3,473	37,425	12,546	1,549	1,304	21,295	78,214
1926 ...	31.3	36.2	—4.9	...	3,342	6,094	31,365	10,780	1,584	1,279	18,661	73,095
1927 ...	33.6	29.5	4.1	...	3,793	1,937	24,948	9,180	1,198	1,302	16,723	61,047
1928 ...	39.5	30.9	8.6	...	5,399	702	29,037	7,843	1,326	1,195	18,281	63,783
1929 ...	35.6	32.4	3.2	...	7,272	106	28,937	9,203	1,250	1,102	19,062	66,922
1930 ...	38.9	28.3	10.6	...	1,654	606	28,082	6,809	1,120	1,004	19,361	58,546
1931 ...	35.4	35.0	.4	...	5,291	1,204	34,660	11,355	1,350	1,179	21,327	76,286

TABLE V.

PRICES CURRENT (RETAIL).

(Per standard maund of 80 tolas, for the fortnight ending 31st March.)

Year.	Common rice.	Wheat.	Gram.	Salt.	GM.	Sugar (Raw).	Kerosine oil per tin.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1911 ...	2 12 3	3 6 2	2 3 9	1 13 0	43 8 8	4 15 4	1 12 0
1912 ...	3 6 2	3 6 2	3 6 0	1 13 0	43 2 0	5 5 4	1 13 0
1913 ...	3 10 11	3 12 11	4 7 0	1 10 0	50 12 0	4 4 0	2 1 0
1914 ...	4 5 8	4 5 8	5 1 3	1 9 0	60 15 0	4 14 0	2 3 0
1915 ...	3 12 11	6 1 6	6 1 6	2 0 0	53 5 4	5 9 0	2 3 6
1916 ...	3 12 11	4 5 9	6 12 4	2 0 0	53 5 4	5 5 4	2 12 0
1917 ...	3 6 2	4 5 8	5 1 3	2 0 0	53 5 4	5 11 6	3 2 0
1918 ...	3 0 9	5 1 3	5 1 3	2 8 0	60 15 2	5 5 4	3 4 0
1919 ...	6 6 5	8 1 7	10 2 6	3 1 2	64 12 2	4 15 3	2 12 9
1920 ...	6 12 0	7 9 0	12 6 0	2 8 0	68 9 0	9 2 0	3 6 0
1921 ...	5 9 0	6 12 0	10 10 6	2 8 0	68 9 0	11 7 0	3 11 0
1922 ...	4 5 6	8 12 0	11 7 0	3 12 0	76 3 0	11 7 0	3 12 0
1923 ...	3 9 0	5 8 0	7 2 0	3 0 0	80 0 0	7 10 0	3 5 0
1924 ...	4 0 9	4 14 0	7 10 0	2 10 0	83 13 0	8 9 0	3 6 6
1925 ...	4 15 3	7 3 9	7 3 10	2 4 0	83 13 0	7 9 10	3 6 6
1926 ...	5 0 9	6 3 0	7 9 10	3 0 0	91 6 10	8 0 0	3 10 6
1927 ...	5 4 6	6 12 0	9 8 0	2 9 0	83 13 0	8 9 0	3 6 0
1928 ...	4 11 3	6 1 0	10 0 0	2 8 0	80 0 0	8 12 0	3 6 0
1929 ...	4 0 0	7 5 0	9 2 3	2 10 0	83 13 0	7 9 6	3 2 0
1930 ...	3 7 0	5 11 3	10 0 0	2 8 0	82 8 0	8 0 0	3 6 0

GLOSSARY.

Vernacular.	English.
A	
Abwab ...	... An illegal toll, or cess.
Alaka ...	... Head ornament worn by women.
Amil ...	... An agent.
Attardan ...	... A perfume flask.
B	
Bahal ...	... See Lakhiraj Bahal.
Baigan ...	... A vegetable (solanum melongena).
Bairagi ...	... An ascetic.
Balia ...	... Sandy soil.
Balia-matal ...	... Rich sandy loam.
Balunga ...	... Wild paddy.
Bara dhan ...	... A heavy autumn paddy.
Baziafti ...	... Fr. Persian Baz=back, Yafra=taken. Lands held under invalid revenue-free grants and resumed and assessed to revenue, either at full rates (Kamil baziafti), or at half rates (nisfi-baziafti).
Bepari ...	... A middleman, commission agent.
Bhadoi ...	... The autumn harvest.
Bharan ...	... A measure of grain variable in its content.
Bhog ...	... Food offered to an idol.
Biali ...	... The autumn paddy crop.
Birhi ...	... A pulse (Phaseolus radiatus).
Bisa ...	... A weight.
Brinjal ...	... See Baigan.
Bund ...	... An embankment.
C	
Chadar ...	... A sheet, worn on the body.
Chandinadar ...	... A non-agricultural resident in a village who pays a rent (chandina) for his homestead only.

Vernacular.	English.
Chaudhuri ...	... Originally a subordinate official, now a sub-proprietor.
Chaukidar ...	... A village watchman.
Chauria ...	... A hard clay soil.
Chauth ...	... One-fourth of the revenue, paid as tribute to an overlord.
Chikita ...	... A stiff clay soil.
China ...	... A cereal (<i>Panicum miliaceum</i>).
D	
Dafadar ...	... Sub-officer of rural police, in command of a number of chaukidars.
Dal ...	... Cooked pulse.
Dalua ...	... Spring paddy.
Dandidar ...	... A weighman.
Danga ...	... Upland, waste.
Darwan ...	... A doorkeeper.
Dera ...	... Lands on the side of a jora or water-logged hollow.
Dhipa ...	... High lands.
Dhoti ...	... A loin-cloth.
Dhuanpatra ...	... Tobacco leaf.
Dhulibhag ...	... A system of payment of rent in kind by division of the crop and all by-products between the tenant and the landlord (lit. sharing the dust).
Dorasa ...	... Loamy soil.
F	
Feni ...	... A kind of sweetmeat.
G	
Gadi ...	... Seat of authority, throne.
Gahira ...	... Land at the top of low hollows.
Gamcha ...	... A small cloth or handkerchief.
Ganja ...	... The hemp plant (<i>Cannabis indica</i>).
Gantali ...	... Land midway in height between the homesteads and the ordinary fields.

Vernacular.	English.
Garhjat ...	... A bastard plural of the Hindi word Garh, "a fort", framed on the analogy of the Arabic-Persian Qila, "a fort" pl. Qilajat.
Gauni ...	... A measure of grain.
Gengutia ...	... A clay soil mixed with lime.
Gharami ...	... A thatcher.
Gharbari ...	... Homestead lands.
Ghariyal ...	... Fish-eating crocodile.
Ghat ...	... A staircase, a crossing place.
Ghi ...	... Clarified butter.
Gumashta ...	... Agent, Manager.
Gunt ...	... A measure of land=.08 acre.
Guru ...	... A heavy paddy.

H

Haliya A ploughman.
Harar ...	... A pulse (<i>Cajanus indicus</i>).
Hat ...	... A market.
Hilsa ...	... An edible fish of the carp family.
Hira ...	... A ridge subdividing a field.

J

Jagir Lands held on condition of rendering service.
Jala ...	... Wet lands.
Jamabandi Kharidadar ...	... Orig. a purchaser of lands, nominally waste and unassessed, for development. Now a subordinate proprietor or tenure-holder.
Janta ...	... An irrigation scoop, a plate with holes for wire-drawing.
Jatra ...	... A festival, a fair.
Jora ...	... A water-logged hollow.

K

Kala Homestead lands with rich dark soil.
Kankar ...	... Gravel composed of lime nodules.
Khal ...	... Lowland.

Vernacular.	English.
Khalsa ...	... Areas brought directly under the Mughal land revenue system. <i>See</i> Mughalbandi.
Khaorah ...	... A wheelless cart.
Karidadar ...	... <i>See</i> Jamabandi.
Khas Mahal ...	... Lands in the direct possession of Government.
Kila ...	... <i>See</i> Qila.
Kos ...	... About two miles.
Kothi ...	... A granary, a depot.
Kothiya ...	... Agricultural labourer, permanently retained and living in his master's house.
Kulthi ...	... A pulse (<i>Dolichos biflorus</i>).
L	
Laghu ...	... A light paddy.
Lakhiraj ...	... Exempt from revenue.
bahal ...	... Confirmed revenue-free grant.
hin hayati ...	... Exempt for the life of the holder.
M	
Madhiyana ...	... Lands on an intermediate level.
Madrassa ...	... A Muhammadan elementary school.
Mahajan ...	... A wealthy man, money-lender.
Mahal ...	... A revenue paying unit, an estate.
Malguzar ...	... A revenue farmer or manager.
Malikana ...	... The allowance made for the support of the proprietor of a revenue-paying estate.
Mandia ...	... A cereal (<i>Eleusine Coracana</i>).
Matal ...	... A clay soil.
Math ...	... A religious foundation, monastery.
Mazkuri ...	... Lit. mentioned, i.e. separately entered in the rolls as paying revenue direct to Government.
Muga ...	... A pulse (<i>Phaseolus mungo</i>).
Mughalbandi ...	... <i>See</i> Khalsa.

Vernacular.	English.
Muharrir ...	... A clerk, writer.
Muliya ...	... An unattached agricultural labourer.
Muqaddam ...	... A village headman.
Mustajir ...	... A revenue farmer.
N	
Nodha ...	... A hollow tube or pipe used for irrigating.
Nunajami ...	... Saline soil.
O	
Odaro ...	... A large basket-work container fixed to a cart for carrying grain.
P	
Padhan ...	... A village headman.
Pahi ...	... Non-resident.
Paik ...	... A soldier of the old feudal militia.
Pal ...	... A weight.
Pala ...	... Riverside lands.
Palki ...	... A palanquin.
Pan ...	... A plant (Piper betel).
Panchayat ...	... A court of arbitrators.
Panda ...	... A member of the staff of a temple.
Panidhan ..	... A system of payment of rent partly in cash and partly in kind.
Pankua ...	... Black muddy soil.
Pansia ...	... A loose fertile soil.
Pargana ...	... A revenue division.
Pat ...	... A shallow depression on a drainage channel.
Patta ...	... A lease, deed of grant.
Patu ...	... Alluvial soil.
Peshkash ...	... A small present, or peppercorn rent.
Phalbhag ...	... Division of the fruits. A system of produce rent.

Vernacular.	English.
Pipal ...	... A tree (<i>Ficus religiosa</i>).
Pokhari ...	... A pond, reservoir.
Puja ...	... Ceremony of worship.
Q	
Qabuliyat ...	... Agreement. Counterpart to a lease.
Qanungo ...	... Lit. Speaker of the law. A subordinate revenue official.
Qila ...	... A fort.
R	
Rabi ...	... The spring harvest.
Raiyat ...	... A cultivating tenant.
Rajwara ...	... Under the Mughal land system, areas not directly administered, but ruled by local chiefs who paid tribute, as opposed to Khalsa.
Rangamati ...	... A ferruginous sandy loam.
Rektimatal ...	... A stiff rich soil.
S	
Sair ...	... Miscellaneous tolls and collections apart from land revenue proper.
Sal ...	... An important timber tree (<i>Shorea robusta</i>).
Sambar ...	... A deer (<i>Cervus unicolor</i>).
Sanad ...	... Letter of appointment.
Sanja ...	... Produce rent, payment of a fixed quantity of grain.
Sarad ...	... The winter paddy crop.
Sarbarahkar ...	... One responsible for collecting and paying the rent or revenue of a village, and enjoying certain privileges in return.
Sari ...	... Woman's principal garment.
Saru ...	... A tuber (<i>Colocasia antiquorum</i>).
Sasan ...	... A colony of Brahmans living on a royal grant of land.
Sathika ...	... A biali paddy, ripening in 60 days.
Sebayat ...	... Trustee and manager of lands, the property of an idol.

Vernacular.	English.
Sena ...	... A basket swung by ropes and used for irrigation.
Shikmi ...	... Lit. 'in the belly', i.e. included.
Zamindar ...	... A proprietor who pays revenue not direct but through another zamindar.
Raiyat ...	... An under-raiyat.
Sukua ...	... Dried fish.
Supari ...	... The areca nut.

T

Tahsildar ...	... A collector of rent or revenue.
Taluq ...	... A revenue subdivision.
Taluqdar ...	... The proprietor thereof.
Tankidar ...	... One holding at a quit-rent.
Tari ...	... Toddy. The fermented juice of the palm.
Telbalija ...	... A sandy loam.
Tenda ...	... A bamboo water-lift.
Thani ...	... From Sthani=fixed, permanent. A resident as opposed to a non-resident cultivator (Pahi).
Thenga ...	... Upland, waste.
Til ...	... Gingelly.
Tirtha ...	... A place of pilgrimage.
Tol ...	... A Sanskrit school.
Tola ...	... A weight. Ordinarily 80=1 seer. In Cuttack a seer consists of 105 tolas.

Z

Zamindar ...	... A landed proprietor.
Zamindara ...	... The same as Rajwara (q.v.).

INDEX.

A

Afghans
in Orissa, 29-30, 31.
Alamgir Hill, 218-19.
Alti Hills.
See Assia Hills.
Amravati Hill, 219.
Anavas, 19, 20.
Andhra rule in Orissa, 28.
Annachhatra fund, 74.
Area of district, 1.
Asoka in Orissa, 17-21.
Assia Hills, 3, 219.
Aul, 184, 220-22.

B

Bahmani Sultans, 27, 28.
Baitarni, 4, 7.
Floods in —, 97, 102, 129-34.
Banki, 222-23.
Barabati fort, 38, 223, 229.
Baradihi Hill, 223.
Bayazid, 30.
Baziaftidars, 140, 189, 194-95.
Betel cultivation, 89, 90.
Bhoi dynasty, 29.
Biali Rice, 82, 85-86.
Birupa, 4, 5, 7.
Botany of the district, 11-13.
Boundaries of the district, 1.
Brahmans, 59, 62-65, 260.
See also Mastans.
Brahmani, 3, 4, 6.
Floods in —, 97, 129-34.
Bruton, William, 14-15, 154-55, 229, 236.
Burha, 4, 7.

C

Canals.
See Ch. VI, 100, 104-17.
High level —, 107.
Jajpur —, 108.
Kendrapara —, 108-09.
Machgaon —, 110.
Taldanda —, 109.
Cartwright
expedition to Orissa, 32, 154-56, 229, 237.
Cattle, 94.
Census.
See Population.
Chaitanya, 29, 30, 58.
Chandbali, 7, 8, 171.
Chandinadars, 141, 189, 196.
Chasas, 61, 260.
Chateswar, 30, 223.
Chatia Hill, 224.
Chaudhris, 175.
Chaudwar, 224.
China crop, 87.
Chitartala, 4, 5.
Chodaganga, 26.
Cholera, 68.
Christians, 52.
Climate, 14-16.
Communications.
See Ch. X.
Conquest of Orissa
by Afghans, 31.
Asoka, 21.
Eastern Gangas, 25.
English, 37-39.
Marathas, 33.
Mughals, 31.

Constituencies, 205.
 Co-operative Societies, 147-48.
 Cotton, 89.
 Cambodia —, 92.
 Crime, 204.
 Crops.
 See Ch. V.
 Cuttack, Origin of name, 1.
 Cuttack town, 208, 225-32.
 Cyclones, 135-37.

D

Dalua rice, 83, 86.
 Darpan, 3, 184, 232-33.
 Deuli, 233.
 Devi, 1, 4, 6, 7, 8.
 Dhamra, 1, 4, 5, 6, 7, 167.
Dhulibhag, 141-42.
 District Board, 206-07.
 Dompura, 234.

E

Embankments, 97-104.
 See Chs. VI and VII.
 Engineering.
 Orissa School of —, 216-17.
 English in Orissa.
 Bruton's account, 14-15, 32.
 Conquest by —, 37-39.
 Motte's visit, 36-37.
 Estuaries, 7
 Excise, 200-01.

F

Factories, 154.
 False Point, 6-8, 167, 235.
 — harbour, 8, 159, 167-68, 235.
 Famines, 119-26, 166.
 Fauna, 13-14.
 Ferries, 169.
 Fevers, 67.
 Filigree work, 150.

Firoz Shah.
 Invasion of —, 27.
 Floods, 96-100, 126-34.
 Highest levels of —, 134.
 Flood committees, 103-104, 130-34.
 Flora, 11-13.

G

Ganga dynasty, 25.
 Gauras, 65, 260.
 Genguti, 4, 5, 7.
 Geology of district, 9-11.
Gram Devati worship, 54-57.
 Gold filigree work, 150.
 Government estates, 182-183.

H

Hariharpur.
 English at —, 32, 155, 236.
 Harispurgarh, 38, 154, 167, 184, 237.
 High level canal, 107-08.
 Hiuén Tsang.
 See Yuan Chwang.
 Hook-worm, 72.
 Hospitals, 75.
 Cuttack General —, 75-76.
 Humidity, 15.

I

Income-tax, 202.
 Indebtedness, 144-46.
 Industries.
 See Ch. IX.
 Infirmities, 72.
 Influenza, 67.
 Inoculation
 for cholera, 68.
 Small-pox, 69-71.
 Irrigation.
 See Canals, water-lifts.

J

- Jagirdars*, 189, 197.
Jails, 205.
Jains, 22, 23, 25.
Jajpur.
 Canal, 108.
 Town, 238—45.
Jamabandi kharidadars, 139-40, 192, 194-95.
Juangs, 18.
Jute, 88.

K

- Kalapahar*, 30, 243.
Kalinga, 20-21.
Kalkala, 245.
Kanika, 38, 40, 184, 246—48.
Kapilendradeva, 27-28.
Kara dynasty, 24-25.
Katjuri, 4, 6.
 Floods in —, 97—99, 128—34.
Kelo, 4, 5, 7.
Kendrapra.
 Canal, 108-09.
 Town, 209, 248.
Kewats, 19, 260.
Khalsa.
 See Mughalbandi.
Khandaits, 60, 260.
Kharavela, 20, 22-23.
Kharsua, 4, 7.
Khas mahals, 182-83.
Khurda rebellion, 39, 180.
Kimiria, 4, 5, 7.
Kongoda, 23-24.
Koyakhai, 4, 6.
Kuhunda Jaipur, 5.
Kujang, 38, 40, 184, 248—50.
Kulthi, 87.

L

- Lalbagh*, 231-32.
Land Revenue System.
 See Ch. XI.
 English —, 178—82.

- Hindu* —, 174.
Maratha —, 176—78.
Muhammadan —, 174—76.
Land tenures, 188—90.
Language, 47—49.
Legislature.
 Constituencies in —, 205.
Leper Asylum, 76.
Literature, Oriya, 49—51.
Local Boards, 207-08.

M

- Madhupur*, 184, 250.
Mahanadi, 4, 5.
 Floods in —, 97, 99, 127—34.
Mahavinayaka Hill, 3, 250-51.
Man Singh, 32, 177.
Mandia, 87.
Manures, 92-93.
Maratha.
 — *Invasion*, 33.
 — *Misrule*, 33—36, 59.
 — *Revenue system*, 176—78.
Markets, 162-63.
Mastans, 20.
Material condition, 144—47.
Medical School, Orissa, 76.
Mercantile classes, 147, 160-61.
Migration, 45.
Missions, Christian, 52-53.
Motor transport, 172.
Mughalbandi, 3, 183.
Muhammadan.
 Conquest, 31.
 — *Population*, 51.
 — *Raids*, 26-27.
 — *Revenue system*, 174—76.
Mukundadeva, 29—31.
Municipalities.
 Cuttack, 208.
 Jajpur, 209.
 Kendrapara, 209.
Munim Khan, 31-32.
Mugaddams, 175.
 See also Tenure-holders.

N

Naltigiri Hill, 3, 251-52.
 Narasimha I, 26-27.
 Navigation, 113.
 Nun, 4, 5.

O

Odra, 19, 24, 48.
 Oil-seeds, 88.
 Oriya.

Character, 57-60.
 Language, 47-49.
 Literature, 49-51.

P

Pahi raiyats, 138-39, 189, 195-96.
 Paika, 4, 5.
Paiks, 39-40, 58.
 Palmyras Point, 7, 252.
 Pans, 18, 65, 260.
 Patiya, 252.
 — river, 4, 7.
 Permanently settled estates, 164-85.
 Police, 204-05.
 Population, 41-44, 256-59.
 Prices, 144, 262.
 Produce rents, 141-42.

Q

Qadam Rasul, 232.
Qanungos, 175.
Qilajat estates, 183-84.

R

Rainfall, 16, 78.
 Raiyats, 195.
 See also Chs. VIII and XI.
Rajwara, 3, 177.
 Ratnagiri Hill, 252-53.
 Ravenshaw College, 215-16.
 — Girls' School, 217.
 Rebellion in Khurda, 39.
 Registration, 202.
 Rents. *See* Chs. VIII and XI.
 Produce —, 141-42.

Revenue-free lands, 186-88.
 Rice crop, 82-83.
 Biali —, 85-86.
 Dalua —, 83-86.
 Improved varieties of —, 92.
 Sarad, 82-85.
 River system, 3-9.
 Roads, 170-72.

S

Sailodbhava dynasty, 23-24.
 Salt, manufacture of —, 151.
 Sanitation, 73-74.
Sarad rice, 82-85.
 Sarangarh, 253.
Sarbarahkars, 175, 193.
 — in Banki, 223.
 See also Tenure-holders.
 Savars, 17, 260.
 School of Engineering.
 The Orissa —, 216-17.
 Settlements, 138-39, 178-82.
Shikmi zamindars, 192-93.
 Silk, cultivation and weaving, 152-53.
 Small-pox, 69-71.
 Soils.
 See Ch. V.
 Solar dynasty, 27-29.
 Stamp revenue, 202.
 Sugarcane, 88-89, 92.
 Sukinda, 184, 253-54.
 Surua, 4, 6.

T

Taldanda canal, 109-10.
Taluqdars, 175.
 See also Tenure-holders.
Tankidars, 140, 189, 194.
 Tanneries, 153.
 Tenure-holders, 191-92, 194-95.
Thani raiyats, 138-39, 189, 195-96.
 Tobacco cultivation, 89.
 Todar Mal, 31, 174, 177.
 Tosali, 21.
 Trade, 156-63.

INDEX.

v

U

Udayagiri Hill, 3, 254-55.
Under-raiyats, 197.
Union Boards, 208.
Utkalas, 19.

V

Vaishnavism, 29, 53.
Vijayanagar, 28-29.
Vyas Sarovar, 255.

W

Wages, 142-43.
Water-hyacinth, 12.
Water-lifts, 79-80.

Water-rates, 115-16.
Weaving, 151-52.
Weights and measures, 163-64.
Weirs, 106-07.
Wild animals.
See Fauna.

Y

Yuan Chwang.
Visit of —, 24.

Z

Zamindara.
See Rajwara.
Zamindars, 190.
Shikmi —, 192-93.

